

Access DB#

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Margaret Einsman Examiner #: 69738 Date: 2-28-03
Art Unit: 1751 Phone Number 308 3826 Serial Number: 09/865323
Mail Box and Bldg/Room Location: CP3 9822 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Mixtures of sulfone esters

Inventors (please provide full names): Uwe Vogt

Earliest Priority Filing Date: DE10028224.5 6/7/2000

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search Claim 1

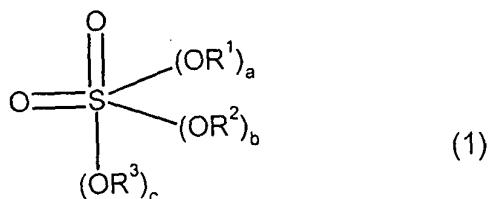
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STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>EL</u>	NA Sequence (#) _____	STN <u>\$452.29</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>✓ (2)</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic <u>✓ (and)</u>	Dr. Link _____
Date Completed: <u>2-27-03</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>10</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>130</u>	Other _____	Other (specify) _____

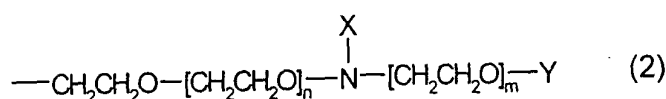
WHAT IS CLAIMED IS:

1. A mixture of sulfuric esters of formula (1)



wherein

- 5 R^1 is an aliphatic radical having 1 to 30 carbon atoms,
 R^2 is a radical of formula (2)



wherein

- 10 n is an integer from 0 to 30,
 m is an integer from 1 to 29,
 X is an aliphatic radical having 4 to 24 carbon atoms, and
 Y is H or $\text{SO}_2(\text{OM})$, where M represents hydrogen, alkali metal, ammonium, mono-, di-, tri-, or tetra($\text{C}_1\text{-C}_6\text{-alkyl}$)ammonium, or mono-, di-, tri-, or tetra($\text{C}_2\text{-C}_6\text{-alkanol}$)ammonium ions,

- 15 R^3 is a radical of formula (3)



wherein

- 20 p is an integer from 4 to 35,
 R^4 is H, methyl, ethyl, phenyl, or mixtures of H and methyl, and
 Z is H, methyl, ethyl, or $\text{SO}_2(\text{OM})$, where M represents hydrogen, alkali metal, ammonium, mono-, di-, tri-, or tetra($\text{C}_1\text{-C}_6\text{-alkyl}$)ammonium, or mono-, di-, tri-, or tetra($\text{C}_2\text{-C}_6\text{-alkanol}$)ammonium ions, and

a, b, and c are identical or different and are 0, 1, or 2, with the proviso that
 $a+b+c$ is 2,

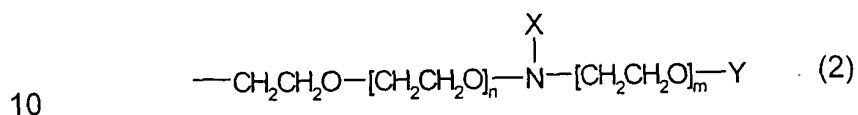
obtained by reacting sulfonyl chloride with a mixture of the alcohols R^1OH ,
 R^2OH , and R^3OH , wherein R^1 , R^2 , and R^3 have the same meanings as for

5 formula (1) except that Y is exclusively hydrogen and Z is hydrogen,
 methyl, or ethyl.

2. A mixture of sulfuric esters according to Claim 1 wherein

R^1 is an aliphatic radical having 4 to 30 carbon atoms,

R^2 is a radical of formula (2)



wherein

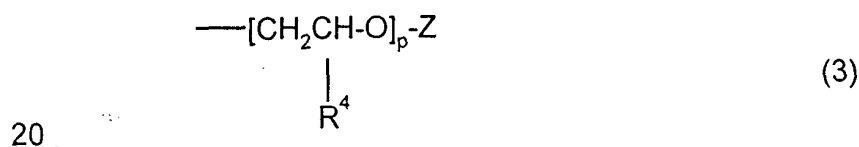
n is an integer from 0 to 10,

m is an integer from 1 to 10,

X is an aliphatic radical having 12 to 24 carbon atoms, and

15 Y is H or $\text{SO}_2(\text{OM})$, where M independently represents
 hydrogen, alkali metal, ammonium, mono-, di-, tri-, or tetra-
 $(\text{C}_1\text{-C}_6\text{-alkyl})$ ammonium, or mono-, di-, tri-, or tetra $(\text{C}_2\text{-C}_6\text{-}$
 alkanol)ammonium ions,

R^3 is a radical of formula (3)



wherein

p is an integer from 3 to 35,

R^4 is H or methyl, and

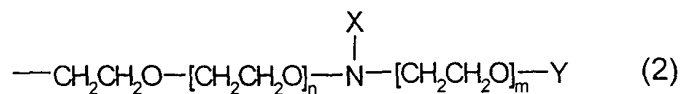
25 Z is H, methyl, ethyl, or $\text{SO}_2(\text{OM})$, where M independently
 represents hydrogen, alkali metal, ammonium, mono-, di-,
 tri-, or tetra $(\text{C}_1\text{-C}_6\text{-alkyl})$ ammonium, or mono-, di-, tri-, or
 tetra $(\text{C}_2\text{-C}_6\text{-alkanol})$ ammonium ions, and

a, b, and c are identical or different and are 0, 1, or 2, with the proviso that $a+b+c$ is 2.

3. A mixture of sulfuric esters according to Claim 1 wherein

R^1 is an aliphatic radical having 8 to 20 carbon atoms,

5 R^2 is a radical of formula (2)



wherein

n is an integer from 0 to 5,

m is an integer from 1 to 5,

10 X is an aliphatic radical having 16 to 22 carbon atoms, and

Y is H,

R^3 is a radical of formula (3)



wherein

15 p is an integer from 9 to 22,

R^1 is H, and

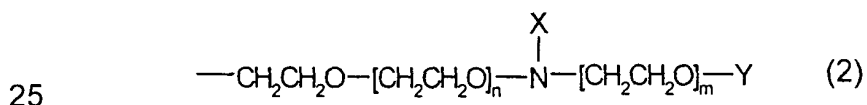
Z is H, and

a, b, and c are identical or different and are 0, 1, or 2 with the proviso that $a+b+c$ is 2.

20 4. A process for preparing a mixture of sulfuric esters according to Claim 1 comprising reacting sulfuryl chloride with a mixture of the alcohols $R^1\text{OH}$, $R^2\text{OH}$, and $R^3\text{OH}$, wherein

R^1 is an aliphatic radical having 1 to 30 carbon atoms,

R^2 is a radical of formula (2)



wherein

=> file reg

FILE 'REGISTRY' ENTERED AT 13:33:55 ON 27 FEB 2003
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=> d his

FILE 'LREGISTRY' ENTERED AT 10:47:58 ON 27 FEB 2003
E SULFURYL CHLORIDE/CN

L1 1 SEA "SULFURYL CHLORIDE"/CN
L2 STR
L3 STR
L4 STR

FILE 'REGISTRY' ENTERED AT 10:58:30 ON 27 FEB 2003
L5 0 SEA SSS SAM L2 AND L3 AND L4

FILE 'HCAPLUS' ENTERED AT 11:01:51 ON 27 FEB 2003

L6 117 SEA VOGT U?/AU
L7 116567 SEA ?SULFURIC? OR ?SULPHURIC?
L8 1 SEA L6 AND L7
SEL L8 1 RN

FILE 'REGISTRY' ENTERED AT 11:06:00 ON 27 FEB 2003

L9 5 SEA (143-02-2/BI OR 143-03-3/BI OR 37340-69-5/BI OR
7664-93-9/BI OR 7791-25-5/BI)
E SULFURYL CHLORIDE/CN
L10 1 SEA "SULFURYL CHLORIDE"/CN OR "SULFURYL CHLORIDE
(SO2CL2)"/CN
D RN
L11 52 SEA 7791-25-5/CRN
L12 22 SEA L11 AND N/ELS
L13 30 SEA L11 NOT L12
L14 23 SEA L11 AND PMS/CI
L15 19 SEA L13 AND L14
L16 11 SEA L11 NOT (L12 OR L15)

FILE 'HCA' ENTERED AT 11:28:09 ON 27 FEB 2003

L17 78334 SEA L9 OR O2SCL2 OR CL2SO2 OR (SULFURYL# OR SULPHURYL#) (A
) (CHLORIDE# OR DICHLORIDE#)
L18 40567 SEA ALKOXYLAT? OR ETHOXYLAT? OR PROPOXYLAT?

FILE 'REGISTRY' ENTERED AT 11:29:31 ON 27 FEB 2003
E OXIRANE/CN

L19 1 SEA OXIRANE/CN
E METHYLOXIRANE/CN
L20 1 SEA METHYLOXIRANE/CN
E ETHYLENE GLYCOL/CN
L21 1 SEA "ETHYLENE GLYCOL"/CN
E PROPYLENE GLYCOL/CN

L22 1 SEA "PROPYLENE GLYCOL"/CN
ACT EOEGPOPG/A

L23 (9682)SEA 75-21-8/CRN
L24 (21863)SEA 107-21-1/CRN
L25 (9283)SEA 75-56-9/CRN
L26 (8413)SEA 57-55-6/CRN
L27 (7690)SEA (L23 OR L24) AND (L25 OR L26)
L28 11 SEA L27 AND 2/NC

E POLYETHYLENE GLYCOL/CN
L29 1 SEA "POLYETHYLENE GLYCOL"/CN
E POLYPROPYLENE GLYCOL/CN
L30 1 SEA "POLYPROPYLENE GLYCOL"/CN
L31 17 SEA L19 OR L20 OR L21 OR L22 OR L28 OR L29 OR L30

FILE 'HCA' ENTERED AT 11:37:40 ON 27 FEB 2003
L32 285265 SEA L31 OR (POLYETHYLENE# OR POLYPROPYLENE# OR POLYALKYLE
NE# OR ETHYLENE# OR PROPYLENE# OR ALKYLENE#) (2A)GLYCOL#

L33 126 SEA ESTERIF?(3A) (L17 OR SO2CL2)

FILE 'LCA' ENTERED AT 11:45:03 ON 27 FEB 2003
L34 3311 SEA (COLOR? OR COLOUR? OR PIGMENT? OR DYE? OR STAIN? OR
PAINT? OR CHROMA# OR CHROMOGEN? OR CHROMOPHOR? OR TINCT?
OR TINT?)/BI,AB
L35 2424 SEA (FIBER? OR FIBR? OR FILAMENT? OR THREAD? OR STRAND?
OR RIBBON? OR FILIFORM?)/BI,AB
L36 2711 SEA (FABRIC? OR TEXTILE? OR CLOTH? OR GARMENT? OR YARN?
OR NAPER? OR DRAPER? OR (DRY OR RAG) (W)GOOD? OR WEAV? OR
WOVE? OR WOOF? OR WEFT? OR WEB? OR SPIN? OR SPUN?)/BI,AB

FILE 'HCA' ENTERED AT 11:46:33 ON 27 FEB 2003
L37 55364 SEA WOOL?
L38 10 SEA L33 AND (L18 OR L32)
L39 3401 SEA (L17 OR SO2CL2) AND (L18 OR L32)
L40 1092 SEA (L17 OR SO2CL2) AND L18

FILE 'REGISTRY' ENTERED AT 11:50:32 ON 27 FEB 2003
E SULFURIC ACID/CN
L41 1 SEA "SULFURIC ACID"/CN

FILE 'HCA' ENTERED AT 11:51:05 ON 27 FEB 2003
L42 6153 SEA (L41 OR (SULFURIC# OR SULFERIC# OR SULPHURIC# OR
SULPHERIC#) (A)ACID# OR H2SO4) (2A) (ESTER? OR DIESTER?)
L43 839 SEA L39 AND L42
L44 148 SEA L43 AND (L34 OR 41/SX,SC)
L45 112 SEA L43 AND (L35 OR L36 OR 40/SX,SC)
L46 16 SEA L43 AND L37
L47 40 SEA L44 AND L45
L48 10 SEA L33 AND (L18 OR L32)
L49 13 SEA L33 AND (L34 OR 41/SC,SX)

L50 9 SEA L33 AND (L35 OR L36 OR 40/SC,SX)
 E AMINES/CV
 L51 105584 SEA AMINES/CV
 L52 4 SEA L33 AND L51
 L53 268 SEA L39 AND L51
 L54 96 SEA L53 AND L42
 L55 6 SEA L47 AND L51
 L56 3 SEA L54 AND L37
 L57 5 SEA L53 AND L37
 L58 1 SEA (L17 OR SO2CL2) (3A) (L18 OR L32) (3A) (?AMINE? OR
 ?AMINO?)
 L59 299 SEA (SULFATE# OR SULPHATE#) (3A) (L18 OR L32) (3A) (?AMINE?
 OR ?AMINO?)
 L60 8 SEA L59 AND L37
 L61 62 SEA L59 AND (L34 OR 41/SC,SX)
 L62 63 SEA L59 AND (L35 OR L36 OR 40/SC,SX)
 L63 26 SEA L61 AND L62
 L64 2248 SEA L42 (3A) (L17 OR SO2CL2)
 L65 107 SEA L64 (3A) (L18 OR L32)
 L66 2 SEA L65 AND L37
 L67 17 SEA L65 AND (L34 OR 41/SC,SX)
 L68 9 SEA L65 AND (L35 OR L36 OR 40/SC,SX)
 L69 2 SEA L67 AND L68

FILE 'REGISTRY' ENTERED AT 12:43:21 ON 27 FEB 2003

L70 STR L3
 L71 0 SEA SSS SAM L2 AND L70 AND L4
 L72 23 SEA SSS SAM L2 AND L4
 L73 SCR 1609
 L74 10 SEA SSS SAM L2 AND L70 AND L4 AND L73
 L75 STR L4
 L76 8 SEA SSS SAM L2 AND L70 AND L75 AND L73
 L77 SCR 1614
 L78 6 SEA SSS SAM L2 AND L70 AND L75 AND L73 NOT L77
 L79 SCR 2070
 L80 6 SEA SSS SAM L2 AND L70 AND L75 AND L73 NOT (L77 OR L79)

 L81 STR L70
 L82 0 SEA SSS SAM L2 AND L81 AND L75 AND L73 NOT (L77 OR L79)

 L83 2 SEA SSS SAM L2 AND L81 AND L75 AND L73
 L84 0 SEA SSS SAM L2 AND L81 AND L75 AND L73 NOT L77

 L85 57 SEA SSS FUL L2 AND L81 AND L75 AND L73 NOT L77
 SAV L85 EIN323/A
 L86 0 SEA L85 AND CL/ELS
 L87 41 SEA L85 AND 5/ELC.SUB

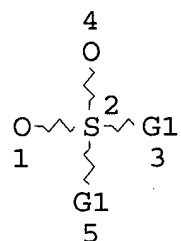
FILE 'HCA' ENTERED AT 13:18:01 ON 27 FEB 2003

L88 20 SEA L87
 L89 36 SEA L50 OR L52 OR L55 OR L56 OR L57 OR L58 OR L60 OR L66
 OR L69 OR L68

L90 15 SEA (L38 OR L48 OR L49) NOT L89
 L91 26 SEA (L46 OR L67) NOT (L89 OR L90)
 L92 18 SEA L63 NOT (L89 OR L90 OR L91)
 L93 19 SEA L88 NOT (L89 OR L90 OR L91 OR L92)

FILE 'REGISTRY' ENTERED AT 13:33:55 ON 27 FEB 2003

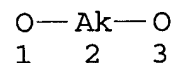
=> d l85 que stat
 L2 STR



VAR G1=O/CL
 NODE ATTRIBUTES:
 CONNECT IS E1 RC AT 1
 CONNECT IS E1 RC AT 4
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 5

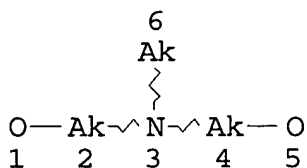
STEREO ATTRIBUTES: NONE
 L73 SCR 1609
 L75 STR



NODE ATTRIBUTES:
 CONNECT IS E2 RC AT 2
 DEFAULT MLEVEL IS ATOM
 GGCAT IS SAT AT 2
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS M2-X3 C AT 2

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE
 L77 SCR 1614
 L81 STR



NODE ATTRIBUTES:

CONNECT IS E2 RC AT 2
 CONNECT IS E2 RC AT 4
 CONNECT IS E1 RC AT 6
 DEFAULT MLEVEL IS ATOM
 GGCAT IS SAT AT 2
 GGCAT IS SAT AT 4
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS M2-X4 C AT 2
 ECOUNT IS M2-X4 C AT 4
 ECOUNT IS M4 C AT 6

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L85 57 SEA FILE=REGISTRY SSS FUL L2 AND L81 AND L75 AND L73 NOT
 L77

100.0% PROCESSED 46601 ITERATIONS
 SEARCH TIME: 00.00.01

57 ANSWERS

=> file hca

FILE 'HCA' ENTERED AT 13:34:09 ON 27 FEB 2003

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=> d 189 1-36 cbib abs hitstr hitind

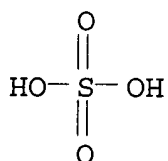
L89 ANSWER 1 OF 36 HCA COPYRIGHT 2003 ACS

138:122346 Photodetachment of Zwitterions: Probing Intramolecular
 Coulomb Repulsion and Attraction in the Gas Phase Using Pyridinium
 Dicarboxylate Anions. Wang, Xue-Bin; Dacres, Jelena E.; Yang, Xin;
 Broadus, Katherine M.; Lis, Lev; Wang, Lai-Sheng; Kass, Steven R.
 (Department of Physics, Washington State University, Richland, WA,
 99352, USA). Journal of the American Chemical Society, 125(1),
 296-304 (English) 2003. CODEN: JACSAT. ISSN: 0002-7863.
 Publisher: American Chemical Society.

AB Zwitterions are critically important in many biol. transformations
 and are used in numerous chem. processes. The consequences of

electrostatic effects on reactivity and phys. properties, however, are largely unknown. The authors report the results of neg. ion photoelectron spectra of nine isomeric pyridinium dicarboxylate zwitterions and three nonzwitterionic methoxycarbonylpyridine carboxylate isomers (-O₂CPyrCO₂Me). Information about the intramol. electrostatic interactions was directly obtained from the photoelectron spectra. The adiabatic and vertical detachment energies were measured and understood in terms of intramol. Coulombic forces. Calcns. at the B3LYP and CCSD(T) level were performed and compared to the exptl. electron binding energies. Structures, relative stabilities, and the electron detachment sites also were obtained from the calcns.

IT 7664-93-9, Sulfuric acid, uses
 (esterification catalysts; photodetachment of
 zwitterions and probing intramol. coulomb repulsion and
 attraction in gas phase using pyridinium dicarboxylate anions)
 RN 7664-93-9 HCA
 CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



CC 22-9 (Physical Organic Chemistry)
 Section cross-reference(s): 73
 IT AM1 MO (molecular orbital)
 Binding energy
 CCSDT (molecular orbital)
 Electron photodetachment
 Electron **spin** density
 Ionization potential
 Isomers
 MP2 (Moller-Plesset)
 Zwitterions
 (photodetachment of zwitterions and probing intramol. coulomb
 repulsion and attraction in gas phase using pyridinium
 dicarboxylate anions)
 IT 7664-93-9, Sulfuric acid, uses
 (esterification catalysts; photodetachment of
 zwitterions and probing intramol. coulomb repulsion and
 attraction in gas phase using pyridinium dicarboxylate anions)

L89 ANSWER 2 OF 36 HCA COPYRIGHT 2003 ACS

137:326848 Wool scouring composition and process therefor.

Swan, John M. (Hallmark Dell Pty Ltd., Australia). PCT Int. Appl.
 WO 2002083999 A1 20021024, 38 pp. DESIGNATED STATES: W: AE, AG,
 AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
 CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID,
 IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,

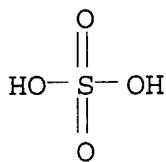
MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2.
APPLICATION: WO 2002-AU455 20020410. PRIORITY: AU 2001-4399 20010412.

AB The present invention relates to the clearing of raw **wool** and other greasy and/or waxy textile materials, and in particular to a process for scouring **wool** utilizing anionic, non-ionic detergents, amphoteric detergents, or blends thereof. The invention also relates to scouring **wool** in an acidic environment. Furthermore, the invention relates to recovering significant percentages of the **wool** wax and allows for re-use of substantial quantities of the water used in the scouring.

IT 7664-93-9, Sulfuric acid, uses 9003-11-6D, Ethylene oxide-propylene oxide copolymer, derivs. (in **wool** scouring compn. and process therefor)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



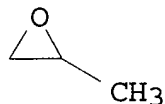
RN 9003-11-6 HCA

CN Oxirane, methyl-, polymer with oxirane (9CI) (CA INDEX NAME)

CM 1

CRN 75-56-9

CMF C3 H6 O



CM 2

CRN 75-21-8

CMF C2 H4 O



IC ICM D01C003-00
ICS C11B011-00
CC 46-6 (Surface Active Agents and Detergents)
Section cross-reference(s): 40, 45
ST **wool** scouring detergent compn process wax recovery
IT Sulfonic acids, uses
(alkanesulfonic; in **wool** scouring compn. and process therefor)
IT Sulfonic acids, uses
(alkylarene; in **wool** scouring compn. and process therefor)
IT Surfactants
(amphoteric; in **wool** scouring compn. and process therefor)
IT Detergents
(anionic; in **wool** scouring compn. and process therefor)
IT Amides, uses
(coco, N,N-bis(hydroxyethyl); in **wool** scouring compn. and process therefor)
IT Sulfobetaines
(deriv.; in **wool** scouring compn. and process therefor)
IT Alcohols, uses
Amines, uses
Fatty acids, uses
(**ethoxylated**; in **wool** scouring compn. and process therefor)
IT Wetting agents
Wool
(in **wool** scouring compn. and process therefor)
IT Amine oxides
Phosphates, uses
Polyphosphoric acids
Sulfonic acids, uses
(in **wool** scouring compn. and process therefor)
IT Detergents
(nonionic; in **wool** scouring compn. and process therefor)
IT **Amines, uses**
(oxide derivs.; in **wool** scouring compn. and process therefor)
IT Wet scrubbing
(scouring; in **wool** scouring compn. and process therefor)
IT Waxes
(**wool** scouring compn. and process therefor including wax recovery)
IT 50-00-0D, Formaldehyde, naphthalenesulfonate adduct, uses
57-50-1D, Sucrose, esters 77-92-9, Citric acid, uses 98-11-3D,
Benzenesulfonic acid, alkyl substituted, uses 107-43-7D, Betaine,
Pr deriv. 139-96-8, Triethanolamine lauryl sulfate 151-21-3,
Sodium lauryl sulfate, uses 2235-54-3, Ammonium lauryl sulfate
3088-31-1 4722-98-9, Monoethanolamine lauryl sulfate

7664-93-9, Sulfuric acid, uses 7758-29-4, Sodium tripolyphosphate 9003-11-6D, Ethylene oxide-propylene oxide copolymer, derivs. 9016-45-9, **Ethoxylated** nonyl phenol 25321-41-9, Xylenesulfonic acid (in **wool** scouring compn. and process therefor)

L89 ANSWER 3 OF 36 HCA COPYRIGHT 2003 ACS

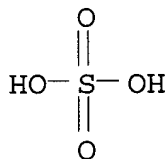
137:64457 Modification of the medium during dyeing of ionically active fiber. Oczkowski, Mirosław; Gajdzicki, Bogumił; Al-Hamdan, Mahmoud (Katedra Chem. Obrobki WYROBOW Włokienniczych, Politech. Łódź, Łódź, Pol.). Przegląd Włokienniczy + Technik Włokienniczy (11), 24-26 (Polish) 2001. CODEN: PWTWEA. ISSN: 1230-0381. Publisher: Wydawnictwo SIGMA-NOT.

AB The effect of components of dyeing bath on the pH changes of the bath in batch dyeing of **wool**, polyamide, and polyacrylonitrile fibers was studied using model systems simulating dyeing baths. These model baths contained various additives, such as acids, salts, and surfactants, but not dyes. The pH values were detd. at various temps. in the interval 20-95.degree.. The result indicate the participation and uptake of ions from dyeing baths by the fibers.

IT 7664-93-9, Sulfuric acid, uses 25322-68-3D, **Polyethylene glycol**, fatty amine derivs. (model dyeing baths in study of modification of the dyeing medium and its pH during dyeing of ionically active fiber)

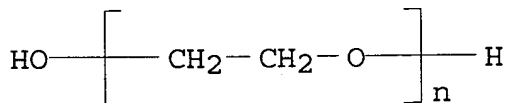
RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



RN 25322-68-3 HCA

CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



CC 40-6 (Textiles and Fibers)

ST pH modification dyeing bath wool polyamide acrylic fiber dyeing; dyeing bath compn pH **wool** polyamide acrylic fiber dyeing

IT **Amines, uses**

(fatty, **ethoxylated**; model dyeing baths in study of modification of the dyeing medium and its pH during dyeing of ionically active fiber)

IT Dyeing

Wool

pH

(model dyeing baths in study of modification of the dyeing medium and its pH during dyeing of ionically active fiber)

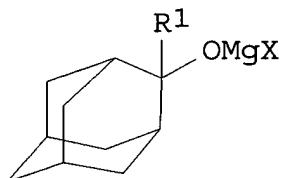
IT 64-18-6, Formic acid, uses 64-19-7, Acetic acid, uses 110-15-6, Succinic acid, uses 110-94-1, Glutaric acid 124-04-9, Adipic acid, uses 7664-93-9, Sulfuric acid, uses 7783-20-2, Ammonium sulfate, uses 25322-68-3D, **Polyethylene glycol**, fatty amine derivs. 26635-92-7 439693-68-2, Nylacide TA 439693-73-9, Pintolane ME

(model dyeing baths in study of modification of the dyeing medium and its pH during dyeing of ionically active fiber)

L89 ANSWER 4 OF 36 HCA COPYRIGHT 2003 ACS

136:150954 Processes for preparation of 2-alkyl-2-adamantyl esters. Yamaguchi, Masao; Hirota, Yoshihiro; Yamamoto, Hiromasa (Tokuyama Corporation, Japan). PCT Int. Appl. WO 2002010112 A1 20020207, 35 pp. DESIGNATED STATES: W: CN, IN, KR, US; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR. (Japanese). CODEN: PIXXD2. APPLICATION: WO 2001-JP6208 20010718. PRIORITY: JP 2000-227158 20000727; JP 2000-242158 20000810; JP 2000-390533 20001222.

GI

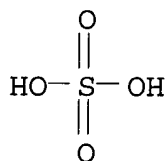


I

AB A process for prepn. of 2-alkyl-2-adamantyl esters comprises reacting a magnesium halide salt of a 2-alkyl-2-adamantanol (I; R1 = C1-6 alkyl; X = halo) with an acyl halide such as acryloyl chloride in the presence of a tertiary amine. An another process for prepn. of 2-alkyl-2-adamantyl esters comprises reacting a 2-alkyl-2-adamantanol with a carboxylic acid such as acrylic acid in the presence of both an acid catalyst such as concd. sulfuric acid and a desiccating agent consisting of an acid or neutral inorg. compd. (such as magnesium sulfate) which is solid in a dry state at normal temps. or a water-absorbent polymer. These esters are important as raw material of the resist with high dry-etching resistance for the prodn. of semiconductor devices. Thus, a soln. of 7.5 g 2-adamantanone in 30 mL THF was added dropwise to a soln. of 0.06 mmol methylmagnesium bromide in 44 mL THF at <40.degree. and stirred at 50.degree. for 3 h to quant. give a THF soln. of 2-methyl-2-adamantanol magnesiumbromide salt I (R1 = Me, X = Br). The latter soln. was cooled to room temp. and treated with 1.62 g Et3N, followed adding 6.90 g methacryloyl chloride at 25.degree.

under stirring, and the resulting mixt. was stirred for 3 h, quenched by adding 1.25 mL ion-exchanged H₂O, treated with 0.02 g phenothiazine (polymn. inhibitor), and concd. under reduced pressure to remove the solvent. The concd. residue was treated with 75 g heptane, successively washed with 1 M aq. NH₄Cl, 10% aq. NaOH, and ion-exchanged H₂O, and concd. under reduced pressure to give 99.1% crude 2-methyl-2-adamantanyl methacrylate (93.1% purity) which can be used for certain purpose without purifn.

IT 7664-93-9, Sulfuric acid, uses
 (esterification catalyst; prepn. of 2-alkyladamantyl esters by esterification of alkyladamantanol with carboxylic acids in the presence of acid catalyst and desiccating agent)
 RN 7664-93-9 HCA
 CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C07C067-14
 ICS C07C069-54; C07C067-08; C07C069-14; C07C069-78
 CC 24-8 (Alicyclic Compounds)
 Section cross-reference(s): 76
 IT **Amines, reactions**
 (tertiary; prepn. of 2-alkyladamantyl esters by esterification of alkyladamantanol magnesium halide salt with carboxylic acid chloride in presence of tert-amine)
 IT 104-15-4, p-Toluenesulfonic acid, uses 1493-13-6,
 Trifluoromethanesulfonic acid 7664-38-2, Phosphoric acid, uses
 7664-93-9, Sulfuric acid, uses 9037-24-5, Amberlyst 15
 (esterification catalyst; prepn. of 2-alkyladamantyl esters by esterification of alkyladamantanol with carboxylic acids in the presence of acid catalyst and desiccating agent)

L89 ANSWER 5 OF 36 HCA COPYRIGHT 2003 ACS

136:38798 Mixtures of **sulfuric acid esters**

as leveling agents for **dyeing wool**. Vogt, Uwe
 (Bayer A.-G., Germany). Eur. Pat. Appl. EP 1162195 A2 20011212, 12
 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT,
 LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (German). CODEN:
 EPXXDW. APPLICATION: EP 2001-112086 20010529. PRIORITY: DE
 2000-10028224 20000607.

AB The title esters (structures specified), which were prepd. by
 reaction of **SO₂Cl₂** with mixts. of alcs., are useful as
 leveling agents for **dyeing** of N-contg. **fibers**,
 esp. **wool**. For example, treating a mixt. of stearyl alc.
 27.0, **polyethylene glycol** (mol. wt. 400) 40.0,
 and **ethoxylated** (5 EO) tallow fatty amines 48.8 g at
 55.degree. for 10 min with 20.2 g **SO₂Cl₂**, stirring the

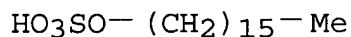
whole for 4 h at 100.degree. under N and 1 h at 20 mbar, cooling to 50.degree. and neutralizing (pH 5-6) the mixt. with 45% aq. NaOH gave a waxy product which was used as leveling agent for **dyeing wool** with acid **dyes**.

IT 143-02-2DP, Hexadecyl sulfate, salts 143-03-3DP, Stearyl sulfate, salts 37340-69-5DP, Polyethylene glycol sulfate, salts

(mixts. of **sulfuric acid esters** as leveling agents for **dyeing wool**)

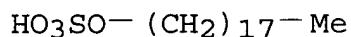
RN 143-02-2 HCA

CN 1-Hexadecanol, hydrogen sulfate (8CI, 9CI) (CA INDEX NAME)



RN 143-03-3 HCA

CN Sulfuric acid, monooctadecyl ester (8CI, 9CI) (CA INDEX NAME)



RN 37340-69-5 HCA

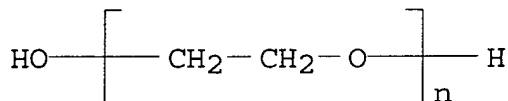
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 25322-68-3

CMF (C2 H4 O)_n H2 O

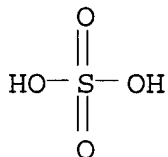
CCI PMS



CM 2

CRN 7664-93-9

CMF H2 O4 S



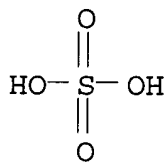
IT 7664-93-9D, Sulfuric acid, **esters**

(mixts. of **sulfuric acid esters** as

leveling agents for **dyeing wool**)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)

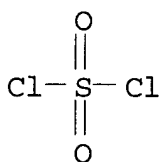


IT 7791-25-5, **Sulfuryl chloride**

(sulfation agent; mixts. of **sulfuric acid esters** as leveling agents for **dyeing wool**)

RN 7791-25-5 HCA

CN Sulfuryl chloride (8CI, 9CI) (CA INDEX NAME)



IC ICM C07C303-24

ICS C07C305-10

CC 40-6 (Textiles and Fibers)

ST **sulfuric acid ester** mixt manuf
leveling agent **dyeing wool**; **stearyl alc**
esterification sulfuryl chloride
leveling agent **dyeing wool**; **polyethylene**
glycol esterification sulfuryl
chloride leveling agent **dyeing wool**;
tallow fatty amine ethoxylated sulfate
manuf leveling agent **dyeing**

IT **Wool**

(mixts. of **sulfuric acid esters** as
leveling agents for **dyeing**)

IT **Dyeing**

Leveling agents
(mixts. of **sulfuric acid esters** as
leveling agents for **dyeing wool**)

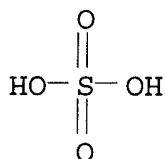
IT **Amines, uses**

(**tallow alkyl, ethoxylated, reaction products,**
sulfates, salts; mixts. of sulfuric
acid esters as leveling agents for
dyeing wool)

IT 143-02-2DP, **Hexadecyl sulfate, salts** 143-03-3DP,
Stearyl sulfate, salts 37340-69-5DP, **Polyethylene**
glycol sulfate, salts

(mixts. of **sulfuric acid esters** as

- leveling agents for **dy ing wool**)
- IT 7664-93-9D, **Sulfuric acid, esters**
(mixts. of **sulfuric acid esters** as leveling agents for **dyeing wool**)
- IT 7791-25-5, **Sulfuryl chloride**
(sulfation agent; mixts. of **sulfuric acid esters** as leveling agents for **dyeing wool**)
- L89 ANSWER 6 OF 36 HCA COPYRIGHT 2003 ACS
- 135:167910 Approach to the method of measuring **wool** damage degree and the influence of anionic and cationic surfactants on **wool** hydrolysis. Zheng, Lin (China Textile University, Shanghai, 200051, Peop. Rep. China). Zhongguo Fangzhi Daxue Xuebao, 26(5), 94-97 (Chinese) 2000. CODEN: ZFDXEQ. ISSN: 1000-1476. Publisher: Zhongguo Fangzhi Daxue.
- AB The damage by alkali hydrolysis was evaluated by the Cu ions absorbed by the **wool**. At pH <4.7, a cationic surfactant accelerated the hydrolysis and an anionic surfactant suppressed the hydrolysis. In an alk. soln., a cationic surfactant suppressed the hydrolysis and an anionic surfactant accelerated the hydrolysis.
- IT 7664-93-9D, **Sulfuric acid, alc. ethoxylate esters**, uses
(detn. of **wool** damage degree and influence of anionic and cationic surfactants on **wool** hydrolysis)
- RN 7664-93-9 HCA
- CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



- CC 40-3 (Textiles and Fibers)
- ST **wool** alkali hydrolysis anionic cationic surfactant effect; copper ion absorption **wool** damage degree measurement
- IT Surfactants
(anionic; detn. of **wool** damage degree and influence of anionic and cationic surfactants on **wool** hydrolysis)
- IT Hydrolysis
(base; detn. of **wool** damage degree and influence of anionic and cationic surfactants on **wool** hydrolysis)
- IT Surfactants
(cationic; detn. of **wool** damage degree and influence of anionic and cationic surfactants on **wool** hydrolysis)
- IT **Wool**
(detn. of **wool** damage degree and influence of anionic and cationic surfactants on **wool** hydrolysis)
- IT Alcohols, uses

(ethoxylated, sulfates; detn. of **wool** damage degree and influence of anionic and cationic surfactants on **wool** hydrolysis)

IT 7664-93-9D, Sulfuric acid, alc.

ethoxylate esters, uses 143243-76-9, Leveling Agent 1227

(detn. of **wool** damage degree and influence of anionic and cationic surfactants on **wool** hydrolysis)

IT 1310-73-2, Sodium hydroxide, miscellaneous

(detn. of **wool** damage degree and influence of anionic and cationic surfactants on **wool** hydrolysis)

IT 7440-50-8, Copper, processes

(detn. of **wool** damage degree and influence of anionic and cationic surfactants on **wool** hydrolysis)

L89 ANSWER 7 OF 36 HCA COPYRIGHT 2003 ACS

134:297519 Fluid cleaning compositions having high levels of amine oxide. Ofosu-Asante, Kofi (The Procter & Gamble Company, USA). PCT Int. Appl. WO 2001025379 A1 20010412, 30 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2000-US27225 20001003. PRIORITY: US 1999-PV157630 19991004.

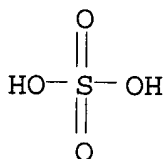
AB The title compns. contain (a) tertiary amine oxides, e.g., C23-alkyldimethylamine oxides 0.01-20, (b) anionic, nonionic, cationic and/or zwitterionic surfactants 0.01-5, and (c) the balance detergent adjunct ingredients. The compns are free of halide bleaching agents. The compns. are preferably employed to spot-clean **stains from fabrics**.

IT 7664-93-9D, Sulfuric acid, alkyl **esters**, uses

(surfactants; fluid cleaning compns. having high levels of amine oxide)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C11D001-75

ICS C11D001-83; C11D001-825; C11D001-835; C11D001-94; C11D001-86; C11D003-30; C11D003-20; D06L001-12; D06L001-04

CC 46-6 (Surface Active Agents and Detergents)
ST cleaning compn amine oxide anionic surfactant; **textile**
spot cleaning fluid compn amine oxide anionic surfactant
IT **Amines, uses**
(diamines, (cyclo)aliph., adjunct ingredients; fluid cleaning
compns. having high levels of amine oxide)
IT 7664-93-9D, **Sulfuric acid**, alkyl
esters, uses 34870-92-3D, **Polyethylene**
glycol sulfate, alkyl ethers
(surfactants; fluid cleaning compns. having high levels of amine
oxide)

L89 ANSWER 8 OF 36 HCA COPYRIGHT 2003 ACS
134:164419 Process for dyeing or printing polyamide fibers. Stumpf,
Martin (Clariant Finance (Bvi) Limited, Virgin I. (Brit.); Clariant
International Ltd.). PCT Int. Appl. WO 2001009430 A1 20010208, 11
pp. DESIGNATED STATES: W: CA, CN, JP, MX, US, ZA; RW: CH, DE, DK,
ES, FR, GB, IT. (English). CODEN: PIXXD2. APPLICATION: WO
2000-IB1053 20000728. PRIORITY: CH 1999-1425 19990803.
AB The process comprises using a storage-stable compn. contg.
sulfated ethoxylated amine as a leveling
assistant.
IC ICM D06P001-62
ICS D06P001-607; C08G065-333; C08G065-334; C07C303-24
CC 40-6 (Textiles and Fibers)
ST **sulfated ethoxylated amine** leveling
assistant; polyamide fiber dyeing leveling assistant; printing
polyamide fiber leveling assistant
IT Dyeing
Leveling agents
Textile printing
Wool
(dyeing or printing polyamide fibers using **sulfated**
ethoxylated amines as leveling assistants)
IT Polyamide fibers, processes
(dyeing or printing polyamide fibers using **sulfated**
ethoxylated amines as leveling assistants)
IT **Amines, uses**
(**ethoxylated, sulfated**; dyeing or printing
polyamide fibers using **sulfated ethoxylated**
amines as leveling assistants)
IT **Amines, uses**
(**polyamines, nonpolymeric, ethoxylated,**
sulfated; dyeing or printing polyamide fibers using
sulfated ethoxylated amines as
leveling assistants)
IT **Amines, uses**
(tallow alkyl, **ethoxylated, poly(propyleneamino)-,**
sulfated; dyeing or printing polyamide fibers using
sulfated ethoxylated amines as
leveling assistants)
IT 10525-37-8D, **Arachidyl amine, aminopropyl**

derivs., **ethoxylated, sulfated** 14130-06-4D,
Behenylamine, aminopropyl derivs.,
ethoxylated, sulfated

(dyeing or printing polyamide fibers using **sulfated ethoxylated amines** as leveling assistants)

IT 872-50-4, 1-Methyl-2-pyrrolidone, uses
(solubilizer; dyeing or printing polyamide fibers using **sulfated ethoxylated amines** as leveling assistants)

L89 ANSWER 9 OF 36 HCA COPYRIGHT 2003 ACS

134:72866 Leveling agents for **dyeing of fabrics** made of **wool** or polyamides or **wool-polyamide** blends.

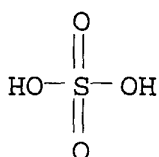
Stavarache, Romeo (S.C. Prod Cresus S.A., Rom.). Rom. RO 110075 B1
19950929, 4 pp. (Romanian). CODEN: RUXXA3. APPLICATION: RO
1995-9500166 19950203.

AB Water-thinned leveling agents which provide improved **dye** penetration in the title use contain polyethoxylated linear alkylphenols 10-30, **ethoxylated** or **propoxylated** amines 10-20, and alcs. 10-30%.

IT 7664-93-9D, **Sulfuric acid,**
esters with fatty alcs., uses 25322-68-3,
Polyethylene glycol
(leveling agents for **dyeing of fabrics** made of **wool** or polyamides or **wool-polyamide** blends)

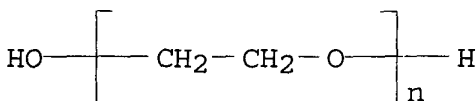
RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



RN 25322-68-3 HCA

CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



IC ICM D06P003-24

ICS D06P003-04

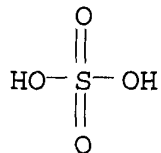
CC 40-6 (Textiles and Fibers)

ST leveling agent **dyeing wool fabric**
ethoxylated alkylphenol; alc leveling agent **dyeing**
polyamide **fabric**; amine **alkoxylated** leveling
agent **dyeing polyamide fabric**

*NO west
NO walking
W FPA 3*

- IT Alcohols, uses
(aliph.; leveling agents for **dyeing** of **fabrics** made of **wool** or polyamides or **wool-polyamide** blends)
- IT **Amines, uses**
(alkoxylated, fatty; leveling agents for **dyeing** of **fabrics** made of **wool** or polyamides or **wool-polyamide** blends)
- IT Polyoxyalkylenes, uses
(ethers, with fatty amines; leveling agents for **dyeing** of **fabrics** made of **wool** or polyamides or **wool-polyamide** blends)
- IT **Amines, uses**
(fatty, alkoxylated; leveling agents for **dyeing** of **fabrics** made of **wool** or polyamides or **wool-polyamide** blends)
- IT **Dyeing**
(leveling agents for **dyeing** of **fabrics** made of **wool** or polyamides or **wool-polyamide** blends)
- IT Polyoxyalkylenes, uses
(leveling agents for **dyeing** of **fabrics** made of **wool** or polyamides or **wool-polyamide** blends)
- IT 112-53-8, Lauryl alcohol 143-28-2, Oleyl alcohol 7664-93-9D, Sulfuric acid, esters with fatty alcs., uses 9016-45-9, Ethoxylated nonylphenol 25322-68-3, Polyethylene glycol 26635-92-7, Ethoxylated stearylamine
(leveling agents for **dyeing** of **fabrics** made of **wool** or polyamides or **wool-polyamide** blends)
- L89 ANSWER 10 OF 36 HCA COPYRIGHT 2003 ACS
- 132:209435 Preparation of glyceryl triacetate and diethylene glycol diacetate plasticizing agent for acetate **fiber**. Yang, Juhua (Peop. Rep. China). Faming Zhuanli Shenqing Gongkai Shuomingshu CN 1194997 A 19981007, 15 pp. (Chinese). CODEN: CNXXEV. APPLICATION: CN 1998-105037 19980123.
- AB The raw material is composed of glacial acetic acid 710-900, glycerin 140-217, diethylene glycol 210-405, activated C 10, EtOAc 15, Na2CO3 10, catalyst A (99% sulfuric acid) 1, and catalyst B (p-toluenesulfonic acid) 1 part. The process comprises mixing acetic acid, glycerin or diethylene glycol, EtOAc and catalyst, esterifying by refluxing while dewatering, neutralizing with base soln., dewatering, decoloring with activated C at 80.degree. for 60 min, and filtering.
- IT 7664-93-9, Sulfuric acid, uses
(**esterification** catalyst; prepn. of glyceryl triacetate and diethylene glycol diacetate plasticizing agent for acetate **fibers** in presence of)

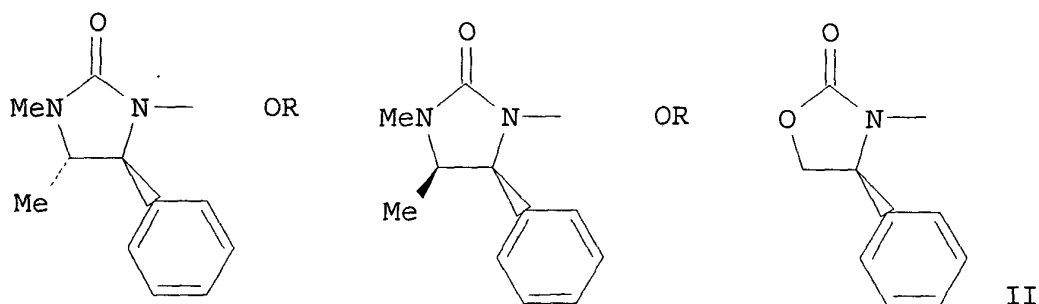
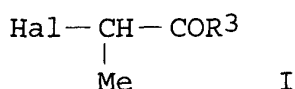
RN 7664-93-9 HCA
 CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



- IC ICM C08G063-00
 CC 45-4 (Industrial Organic Chemicals, Leather, Fats, and Waxes)
 Section cross-reference(s): 40
 IT Decolorizing agents
 (activated carbon; in prepn. of glyceryl triacetate and
 diethylene glycol diacetate plasticizing agent for acetate
 fibers)
 IT Plasticizers
 (prepn. of glyceryl triacetate and diethylene glycol diacetate
 plasticizing agent for acetate **fibers**)
 IT Acetate **fibers**, miscellaneous
 (prepn. of glyceryl triacetate and diethylene glycol diacetate
 plasticizing agent for acetate **fibers**)
 IT Esterification catalysts
 (sulfuric acid, p-toluenesulfonic acid; prepn. of glyceryl
 triacetate and diethylene glycol diacetate plasticizing agent for
 acetate **fibers** in presence of)
 IT 7440-44-0, Activated carbon, uses
 (activated, decolorization agent; in prepn. of glyceryl
 triacetate and diethylene glycol diacetate plasticizing agent for
 acetate **fibers**)
 IT 104-15-4, p-Toluenesulfonic acid, uses
 (esterification catalyst; prepn. of glyceryl triacetate and
 diethylene glycol diacetate plasticizing agent for acetate
 fibers)
 IT 7664-93-9, Sulfuric acid, uses
 (**esterification** catalyst; prepn. of glyceryl triacetate
 and diethylene glycol diacetate plasticizing agent for acetate
 fibers in presence of)
 IT 141-78-6, Ethyl acetate, uses 497-19-8, Sodium carbonate, uses
 (in prepn. of glyceryl triacetate and diethylene glycol diacetate
 plasticizing agent for acetate **fibers**)
 IT 102-76-1P, Glyceryl triacetate 628-68-2P, Diethylene glycol
 diacetate
 (prepn. of glyceryl triacetate and diethylene glycol diacetate
 plasticizing agent for acetate **fibers**)
 IT 56-81-5, Glycerine, reactions 111-46-6, Diethylene glycol,
 reactions
 (prepn. of glyceryl triacetate and diethylene glycol diacetate
 plasticizing agent for acetate **fibers**)

130:188492 Method for preparation of chiral 2-aryl or 2-heterocyclyl propionic acids and their esters. Durandetti, Muriel; Lachaise, Isabelle; Nedelec, Jean Yves; Perichon, Jacques (Rhone Poulenc Rorer S. A., Fr.). Fr. Demande FR 2765246 A1 19981231, 26 pp. (French). CODEN: FRXXBL. APPLICATION: FR 1997-7908 19970625.

GI

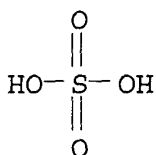


AB A process is presented for prepn. of chiral 2-aryl or 2-heterocyclyl propionic acids and their esters by electrochem. redn. of a mixt. of derivs. of propionic acid, $\text{X}-\text{CH}(\text{CH}_3)\text{COR}^3$, where R^3 is (4S,5R) or (4R,5S)-1,5-diMe-4-phenylimidazolidine-2-on-3-yl or (4R)-4-phenyloxazolidine-2-one-3-yl radical and X represents a halogen atom derived from an arom. or heterocyclic halide deriv. in the presence of nickel complex as a catalyzer and an electrolyte for obtaining the propionic acid deriv. which can be hydrolyzed to prep. the ester.

IT 7664-93-9, Sulfuric acid, uses
(**esterification** of chiral (4S,5R)-1,5
dimethyl-4-phenyl-imidazoline-2-one deriv. in soln. contg.)

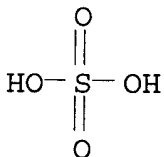
RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C25B003-04

- ICS C07D213-55; C07D333-24; C07C057-30
 ICI C07M009-00
 CC 72-9 (Electrochemistry)
 Section cross-reference(s): 22, 28
 IT 584-08-7 1310-65-2, Lithium hydroxide 7647-01-0, Hydrochloric acid, uses **7664-93-9**, Sulfuric acid, uses (esterification of chiral (4S,5R)-1,5 dimethyl-4-phenyl-imidazoline-2-one deriv. in soln. contg.)
 IT 7440-44-0, Carbon, uses (**fiber**; electrochem. redn. of a mixt. of derivs. of propionic acid and and halide arom. or heterocyclic deriv. in electrolytic cell with cathode from)
- L89 ANSWER 12 OF 36 HCA COPYRIGHT 2003 ACS *Waehny ok*
 128:90354 Liquid bleaching compositions with hydroperoxides. Del Duca, Valerio; Scialla, Stefano; Bianchetti, Giulia Ottavia (Procter and Gamble Company, USA; Del Duca, Valerio; Scialla, Stefano; Bianchetti, Giulia Ottavia). PCT Int. Appl. WO 9747558 A1 19971218, 13 pp. DESIGNATED STATES: W: AU, CA, CN, CZ, HU, IL, JP, MX, US. (English). CODEN: PIXXD2. APPLICATION: WO 1997-US9966 19970606. PRIORITY: EP 1996-870073 19960610.
 AB Liq. compns. are described which are acidic and which contain an alkyl hydroperoxide, such as tert-Bu hydroperoxide or cumyl hydroperoxide, or an organomineral hydroperoxide, such as a trialkylsilyl hydroperoxide. The compns. do not cause skin itching, unlike conventional peroxygen compds., and are useful for bleaching **fabrics**, carpets, toilets, dentures, teeth and hair. In an example, a laundry bleach compn. at pH 4 contained cumyl hydroperoxide 10, Dobanol 23.3, Dobanol 45.7, C12-alkyl sulfate 2, and water to 100%, trimmed with H2SO4.
 IT **7664-93-9D, Sulfuric acid, alkyl esters, ethoxylated alkyl esters**, uses (liq. bleaching compns. with alkyl or organomineral hydroperoxides)
 RN 7664-93-9 HCA
 CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



- IC ICM C01B015-10
 ICS C01B015-04
 CC 46-6 (Surface Active Agents and Detergents)
 Section cross-reference(s): 40, 48, 62
 IT 50-70-4, Sorbitol, uses 56-81-5, 1,2,3-Propanetriol, uses 75-91-2, tert-Butyl hydroperoxide 80-15-9, Cumyl hydroperoxide 144-55-8, Sodium bicarbonate, uses 2466-09-3, Pyrophosphoric acid 3025-88-5, 2,5-Dimethylhexane-2,5-dihydroperoxide 3425-61-4,

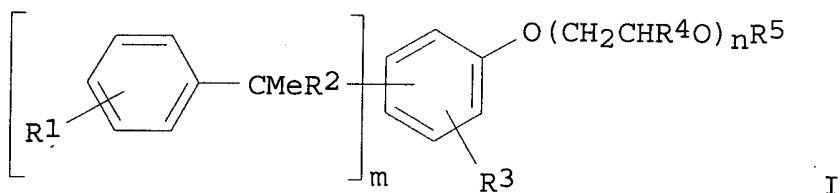
tert-Amyl hydroperoxide 3913-02-8, Isofol 12 5809-08-5,
 2,4,4-Trimethylpentyl-2-hydroperoxide 7664-38-2, Phosphoric acid,
 uses **7664-93-9D, Sulfuric acid**, alkyl
esters, ethoxylated alkyl esters, uses
 25322-68-3D, alkyl sulfate esters 26637-80-9, Diisopropylbenzene
 monohydroperoxide 36653-82-4, Cetyl alcohol 52623-57-1, Ukanil
 84750-06-1, Arlacel 165
 (liq. bleaching compns. with alkyl or organomineral
 hydroperoxides)

L89 ANSWER 13 OF 36 HCA COPYRIGHT 2003 ACS

126:306358 Surfactant mixtures for **colorant** dispersants in
dyeing and white-tinting of polyester

fibers or blends of polyester **fibers**. Lesszinsky, *walk up - OK*
 Fritz; Wanken, Klaus-Wilfried; Nyssen, Peter Roger; Riegels, Martin
 (Bayer A.-G., Germany). Eur. Pat. Appl. EP 764695 A1 19970326, 15
 pp. DESIGNATED STATES: R: CH, DE, FR, GB, LI. (German). CODEN:
 EPXXDW. APPLICATION: EP 1996-114440 19960910. PRIORITY: DE
 1995-19535246 19950922.

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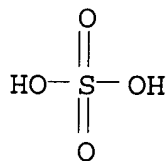


AB Mixts. of (a) arom. alkoxyates I ($R_1 = \text{H or C1-4 alkyl}$, $R_2 = \text{H or Me}$; $R_3 = \text{H, C1-4 alkyl, C1-4 alkoxy, C1-4 alkoxy carbonyl, Ph, or condensed benzene rings}$; $R_4 = \text{gtoreq.1 of H, Me, and Ph}$; $R_5 = \text{H, m} = 1-3$, $n = 6-100$), (b) I [R_1-4 , m , $n = \text{same as above}$, $R_5 = \text{ZX}$, $Z = \text{SO}_3^-$, SO_2^- , or PO_3^{2+} , $X = \text{Li}^+$, Na^+ , K^+ , NH_4^+ , $\text{HOCH}_2\text{CH}_2\text{NH}_3^+$, $(\text{HOCH}_2\text{CH}_2)_2\text{NH}_2^+$, $(\text{HOCH}_2\text{CH}_2)_3\text{NH}^+$, with 2 cations when $Z = \text{PO}_3^{2+}$], and (c) nonionic surfactants are used as **colorant** dispersants in **dyeing** or white-tinting polyester **fibers** and blends of polyester **fibers** and wool, cotton, acrylic **fibers**, or polyamide **fibers** with water-insol. **colorants**. These surfactant mixts. are useful for replacing anionic surfactants such as lignin sulfonates and lignin sulfates in this process.

IT **7664-93-9D, Sulfuric acid**,
esters with **ethoxylated** styrene-phenol adducts,
 ammonium salts, uses
 (surfactant; ~~surfactant mixts.~~ for **colorant** dispersants
 in **dyeing** and white-tinting of polyester
fibers or blends of polyester **fibers**)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



- IC ICM C09B067-00
ICS B01F017-00
- CC **40-6** (Textiles and Fibers)
- ST surfactant mixt dispersant **dyeing** polyester **fiber**
; phosphate alkoxyated styrene phenol adduct dispersant; sulfate
alkoxyated styrene phenol adduct dispersant; polyamide
fiber polyester **fiber** blend **dyeing**;
acrylic **fiber** polyester **fiber** blend
dyeing; cotton polyester **fiber** blend
dyeing dispersant; wool polyester **fiber**
blend **dyeing** dispersant; methylstyrene phenol adduct
alkoxyated dispersant **dyeing**; white **tinting**
polyester **fiber** dispersant; styrene phenol adduct
alkoxyated dispersant **dyeing**
- IT Polyoxyalkylenes, uses
(reaction products with styrene deriv.-phenol adducts,
surfactant; surfactant mixts. for **colorant** dispersants
in **dyeing** and white-**tinting** of polyester
fibers or blends of polyester **fibers**)
- IT Dispersing agents
Dyeing
(surfactant mixts. for **colorant** dispersants in
dyeing and white-**tinting** of polyester
fibers or blends of polyester **fibers**)
- IT 25013-15-4D, Methylstyrene, reaction products with phenol,
ethoxylated
(surfactant mixts. for **colorant** dispersants in
dyeing and white-**tinting** of polyester
fibers or blends of polyester **fibers**)
- IT 100-42-5D, Styrene, reaction products with phenol, ethoxylated
108-95-2D, Phenol, reaction products with styrene derivs.,
ethoxylated, uses **7664-93-9D, Sulfuric**
acid, esters with **ethoxylated**
styrene-phenol adducts, ammonium salts, uses 9004-96-0,
Polyethylene glycol oleate 25322-68-3D, reaction products with
styrene deriv.-phenol adducts 34870-92-3D, ethers with styrenated
phenols, ammonium salts
(surfactant; surfactant mixts. for **colorant** dispersants
in **dyeing** and white-**tinting** of polyester
fibers or blends of polyester **fibers**)
- L89 ANSWER 14 OF 36 HCA COPYRIGHT 2003 ACS
125:303897 Emulsified water/solvent dry cleaning and spot remover
compositions. Roetker, Timothy Clair (Procter and Gamble Company,

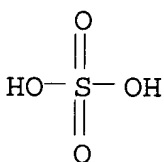
USA). PCT Int. Appl. WO 9630583 A1 19961003, 18 pp. DESIGNATED STATES: W: BR, CA, CN, FI, JP, MX, NO; RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1996-US2902 19960304. PRIORITY: US 1995-413560 19950330; US 1995-544373 19951017.

AB The title compns. contg. solvents, e.g., butoxy propoxy propanol (BPP), are emulsified using low levels of polyacrylate emulsifiers. For example, a title emulsion contg. Pemulen TR-1 (emulsifier), BPP (mixt. of isomers), 1,2-octanediol, C12-amine oxides and Mg salts of ethoxylated alkyl sulfates as surfactants, KOH, and perfume in H2O is applied to ~~fabrics~~ in a home dry cleaning operation.

IT 7664-93-9D, Sulfuric acid, ethoxylated alkyl esters, magnesium salts (surfactants; emulsified water/solvent dry cleaning and spot remover compns.)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM D06L001-04

ICS C11D003-37; C11D003-43; C11D007-50; C11D017-04

CC 46-6 (Surface Active Agents and Detergents)

ST **fabric** cleaning compn aq solvent emulsion; polyacrylate emulsifier **fabric** spot removal compn; butoxy propoxy propanol solvent cleaning emulsion; amine oxide surfactant **fabric** cleaning emulsion; ethoxylated alkyl sulfate salt **fabric** cleaning; magnesium ethoxylated alkyl sulfate **fabric** cleaning

IT **Textiles**

(cleaning compns. for; emulsified water/solvent dry cleaning and spot remover compns.)

IT 7664-93-9D, Sulfuric acid,

ethoxylated alkyl esters, magnesium salts

25322-68-3D, alkyl ethers, sulfates, magnesium salts

(surfactants; emulsified water/solvent dry cleaning and spot remover compns.)

L89 ANSWER 15 OF 36 HCA COPYRIGHT 2003 ACS

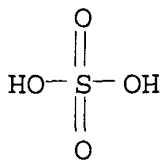
123:173226 Paper coating **pigment** composition and its use.

Gane, Patrick Arthur Charles; McGenity, Philip Martin; Preston, Janet Susan (ECC International Ltd., UK). PCT Int. Appl. WO 9509948 A1 19950413, 29 pp. DESIGNATED STATES: W: AU, BR, CZ, FI, GB, JP, KR; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1994-GB2132 19940930. PRIORITY: GB 1993-20233 19931001.

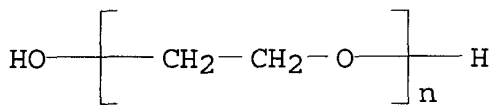
AB A paper coating **pigment** is used in papermaking where the

surface of the **pigment** have been modified with a treating agent having a hydrophobic portion to confer hydrophobic or enhanced hydrophobic character on the **pigment** surfaces, to reduce the coeff. of friction of a **web** of coated paper prepd. therefrom. The paper-coating compn. comprises an aq. suspension of an adhesive, a paper-coating **pigment** which comprises a particulate, inorg. material which has been surface treated, prior to incorporation in the paper coating compn., with a treating agent having a nonpolar hydrophobic portion comprising .gtoreq.1 C8-30 hydrocarbon group and a polar portion capable of binding with the sites on the particle surface, and a dispersing agent for the modified particles of inorg. material. A coating compn. contg. ground chalk treated with 1% stearic acid and a latex adhesive was prepd. and used to coat paper giving a coeff. of friction of 0.27, compared to 0.37 for a coating compn. contg. nontreated ground chalk.

IT (7664-93-9D, Sulfuric acid,
esters 25322-68-3D, Polyethylene
glycol, C8-24 alkyl ethers
(dispersing agent; in paper coating **pigment** compn.)
RN 7664-93-9 HCA
CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



RN 25322-68-3 HCA
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



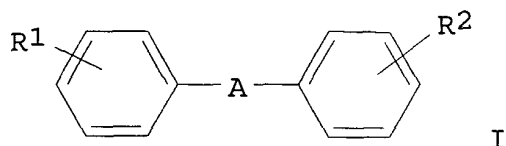
IC ICM D21H019-42
ICS D21H019-38
CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)
Section cross-reference(s): 42
ST **pigment** coating paper reduced friction; dispersing agent
pigment coating paper friction; stearic acid chalk reduced
friction coating
IT Fatty acids, uses
(C7-29; in paper coating **pigment** compn.)
IT **Amines, uses**
(C8-30 alkyl; in paper coating **pigment** compn.)
IT Quaternary ammonium compounds, uses
(C8-30; in paper coating **pigment** compn.)

- IT Polyphosphoric acids
(dispersing agent; in paper coating **pigment** compn.)
- IT Dispersing agents
(in paper coating **pigment** compn.)
- IT Paper
(**pigment** coating compns. with reduced coeff. of friction)
- IT Coating materials
(**pigments** for paper with reduced coeff. of friction)
- IT **Amines, uses**
(hydrogenated tallow alkyl, in paper coating **pigment** compn.)
- IT 151-21-3, Sodium dodecyl sulfate, uses 1343-98-2, Polysilicic acid 7664-93-9D, Sulfuric acid, esters 9003-01-4D, Poly(acrylic acid), salts 25087-26-7D, Poly(methacrylic acid), salts 25322-68-3D, Polyethylene glycol, C8-24 alkyl ethers
(dispersing agent; in paper coating **pigment** compn.)
- IT 57-11-4, Stearic acid, uses
(in paper coating **pigment** compn.)

L89 ANSWER 16 OF 36 HCA COPYRIGHT 2003 ACS

121:207601 Leveling agents for dyeing polyamide fibers with acid dyes, metalized dyes, chrome dyes and/or reactive dyes. Kubo, Norihiro; Morinaga, Shinichi; Uchida, Shigeji (Nikka Chemical Ind Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 06057644 A2 19940301 Heisei, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-201507 19920728.

GI



- AB The agents consist of I [A = CMe₂, SO₂; R₁ = O(CH₂CR₃HO)lSO₃X; R₂ = O(CH₂CR₃HO)mH, O(CH₂CR₃HO)nSO₃X; R₃ = H, Me, and/or Et; l, m, n = 2-30; l + m .ltoreq.50; l + n .ltoreq.50; X = H, Na, K, NH₃]. A wool crepe yarn cheese was dyed with a liq. contg. C.I. Acid Yellow 129 0.22, C.I. Acid Orange 86 0.15, C.I. Acid Black 58 0.30, and ethoxylated p-cumylphenol monosulfonate Na salt/**ethoxylated stearylamine sulfate** (II) 2.0% (on fiber) for 30 min at 100.degree. to give yarns with av. K/S color value 5.51 and ratio of K/S value of the innermost yarns to K/S value of the outermost yarn 0.992, vs. 5.04 and 85.2, resp., using II only.
- IC ICM D06P001-62
ICS D06P003-24

- CC 40-6 (Textiles and Fibers)
ST alkoxyated bisphenol sulfonate leveler polyamide dyeing;
ethoxyated bisphenol sulfonate leveler polyamide dyeing;
wool dyeing leveler alkoxyated bisphenol sulfonate; nylon
dyeing leveler alkoxyated bisphenol sulfonate
IT 31692-35-0 157662-79-8 157662-80-1 157662-82-3 158129-40-9
(leveling agent, for dyeing of **wool** or nylon fibers
with acid dyes)
IT 65104-68-9, **Ethoxyated stearylamine**
sulfate
(leveling agent, with **alkoxyated** bisphenol sulfonate
salts, for dyeing of polyamide fibers with acid dyes)
- L89 ANSWER 17 OF 36 HCA COPYRIGHT 2003 ACS
121:59541 Chlorinated Hydroquinones in Thermotropic Melt Polyesters.
Irwin, R. S. (DuPont Company, Wilmington, DE, 19880-0302, USA).
Macromolecules, 27(14), 3739-45 (English) 1994. CODEN: MAMOBX.
ISSN: 0024-9297.
- AB Selective monochlorination of hydroquinone by SO₂Cl₂ is a preferred
synthetic route to chlorohydroquinone. The product mixt., without
purifn., may be polymd. with terephthalic acid and other comonomers,
such as 6-hydroxy-2-naphthoic acid, to provide high-strength
fibers. Successive in situ chlorination, acetylation, and
polymn. constitute a simple, single-reactor process with an
inexpensive starting material. Chlorination by SO₂Cl₂ took place
almost exclusively in the para position of monoaryl- or
alkyl-substituted hydroquinones. Polymers therefrom, e.g., the
polyterephthalates of 2-chloro-5-phenylhydroquinone or its tert-Bu
analog, melted significantly lower and had T_g higher than in the
absence of chlorine. They provided cryst., high-strength
fibers, with a tenacity of 20-26 g per denier and good
strength retention at high temps. A prime cause of these effects is
electronic dissymmetry across the hydroquinone moiety, optimally
enhanced by steric dissymmetry.
- CC 40-2 (Textiles and Fibers)
Section cross-reference(s): 35, 75
ST hydroquinone chlorination polymn **fiber spinning**;
single reactor process polyester **fiber**; phenylhydroquinone
chlorination polymn **fiber spinning**; liq cryst
polyester **fiber spinning**; naphthalenecarboxylic
acid chloro polyester **fiber**; steric dissemetry monomer
polyester **fiber**
IT Liquid crystals, polymeric
(chlorinated hydroquinone-based polyesters, prepn. of, for
fiber spinning)
IT Polyester **fibers**, preparation
(chlorinated hydroquinone-based, single-reactor-process prepn.
and mech. properties of)
IT Chlorination
(of hydroquinone and aryl- or alkylhydroquinones or
naphthalenediols, by sulfuryl chloride, selectivity of, for
single-reactor-process **fiber spinning**)

- IT Crystallinity
Glass temperature and transition
(of polyesters based on chlorinated hydroquinones, for **fiber melt spinning**)
- IT 581-43-1, 2,6-Naphthalenediol 1079-21-6, Phenylhydroquinone
(chlorination of, by **sulfuryl chloride**, followed by **esterification** with acetic anhydride, in polyester **fiber** synthesis)
- IT 17295-11-3, Methyl 2-hydroxy-6-naphthoate
(chlorination of, with **sulfuryl chloride**, in polyester **fiber** synthesis)
- IT 123-31-9, Hydroquinone, reactions
(chlorination or bromination of, with **sulfuryl chloride** or bromine, in prepn. of polyester **fibers**)
- IT 114239-30-4P 114239-32-6P, 1,4-Benzenedicarboxylic acid, polymer with 2-chloro-5-(1,1-dimethylethyl)-1,4-phenylene diacetate and 6-hydroxy-2-naphthalenecarboxylic acid 114239-34-8P 114265-47-3P 155640-29-2P 155640-32-7P 155640-33-8P 155640-34-9P
(**fibers**, polymer synthesis and melt **spinning** of, in single-reactor-process)
- IT 608-44-6P, 2,3-Dichloro-1,4-hydroquinone 615-67-8P, Chlorohydroquinone 824-69-1P, 2,5-Dichloro-1,4-hydroquinone
(prepn. and acetylation and polymn. of, in polyester **fiber** synthesis)
- IT 155640-30-5P 155924-19-9P
(prepn. and attempted **fiber spinning** of)
- IT 110209-07-9P, 5-Chloro-6-hydroxynaphthalene-2-carboxylic acid 155640-31-6P
(prepn. and polymn. of, in polyester **fiber** synthesis)
- IT 583-69-7P, Bromohydroquinone
(prepn. and polymn. of, with hydroxynaphthoic and terephthalic acid, for **fiber spinning**)
- IT 114239-29-1P, [1,1'-Biphenyl]-2,5-diol, 4-chloro-, diacetate
(prepn. and polymn. of, with hydroxynaphthoic or terephthalic acids, in polyester **fiber** synthesis)

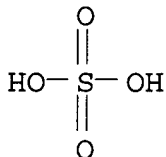
L89. ANSWER 18 OF 36 HCA COPYRIGHT 2003 ACS

117:72101 Detergent compositions containing polyhydroxy fatty acid amide and sulfate of alkoxylated alcohol. Caswell, Debra Sue; Murch, Bruce Prentiss; Mao, Mark Hsiang Kuen (Procter and Gamble Co., USA). PCT Int. Appl. WO 9206158 A1 19920416, 87 pp. DESIGNATED STATES: W: AT, AU, BE, BG, BR, CA, CH, CS, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MC, MG, MN, MW, NL, NO, PL, RO, SD, SE, SU; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IT, LU, ML, MR, NL, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1991-US7027 19910925. PRIORITY: US 1990-590619 19900928; US 1991-730374 19910711; US 1991-755908 19910906.

AB Detergent compns. contg. amide surfactants R2CONR1Z (R1 = H, C1-4 hydrocarbyl, CH2CH2OH, CH2CHMeOH; R2 = C5-31 hydrocarbyl; Z = polyhydroxyhydrocarbyl having a linear hydrocarbyl with .gtoreq.3 OH connected to the chain or an alkoxylated deriv.), an alkyl ether sulfate, and, optionally, an antifoaming agent give good removal of

oily soils from **fabrics**, hard surfaces, etc. A granulated heavy duty detergent compn. contained 11.2% C14-15 alkyl ether sulfate and 11.2% coco fatty acid N-methylglucamide.

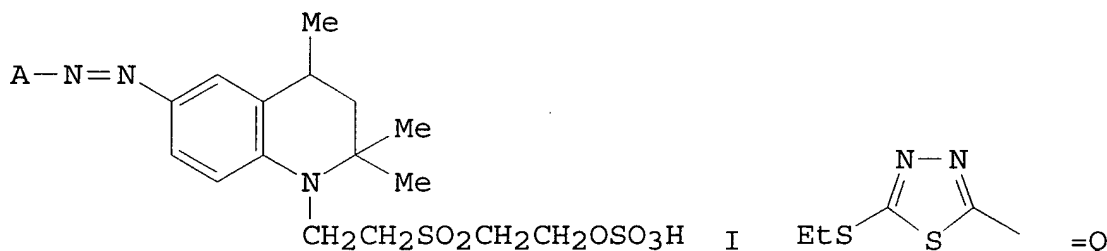
IT **7664-93-9D, Sulfuric acid, esters** with **ethoxylated** alcs.
(detergents contg. polyhydroxy fatty amides and)
RN 7664-93-9 HCA
CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C11D001-65
ICS C11D001-29; C11D001-52; C11D003-32
CC 46-5 (Surface Active Agents and Detergents)
IT **7664-93-9D, Sulfuric acid, esters** with **ethoxylated** alcs. 25322-68-3D,
monoalkyl ethers, sulfates
(detergents contg. polyhydroxy fatty amides and)

L89 ANSWER 19 OF 36 HCA COPYRIGHT 2003 ACS
114:104357 Heterocyclic reactive disperse azo dyes. Zhang, Yingju; Zhang, Ruoheng; Hou, Yufen (Dalian University of Science and Technology, Peop. Rep. China). Faming Zhuanli Shenqing Gongkai Shuomingshu CN 1040998 A 19900404, 13 pp. (Chinese). CODEN: CNXXEV. APPLICATION: CN 1988-106623 19880909.

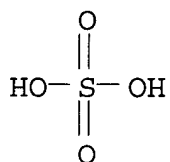
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AB The title dyes I (A = benzenoid amine residue, heterocyclic residue), useful for dyeing cellulosic and polyamide **fibers**, are prepd. Thus, diazotized 2-amino-5-(ethylthio)-1,3,4-thiadiazole was coupled with 2-cyano-4-nitro-6-bromoaniline, reacted with ethylene oxide, chlorinated with POCl₃, condensed with HSCH₂CH₂OH, and oxidized with H₂O₂, forming I (A = Q), a bluish-red

dye (substrate not given).

IT 7664-93-9, Sulfuric acid, reactions
 (esterification by, in reactive azo dye manuf.)
 RN 7664-93-9 HCA
 CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C09B062-40
 ICS C09B067-38
 CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and
 Photographic Sensitizers)
 Section cross-reference(s): 40
 IT 7664-93-9, Sulfuric acid, reactions
 (esterification by, in reactive azo dye manuf.)

L89 ANSWER 20 OF 36 HCA COPYRIGHT 2003 ACS
 114:64111 Comparative studies on the standardization of diverse products
 in the dyeing of **wool**. Cegarra, J.; Riva, A. (Inst.
 Invest. Text. Coop. Ind. Terrassa, Univ. Politec. Catalunya, Spain).
 Tintoria, 87(8), 42-7 (Italian) 1990. CODEN: TINCAW. ISSN:
 0040-7984.

AB In correspondence with attained results, a table summarizing the
 action of leveling agents on all examd. products was given in order
 to attain a given value for acid, reactive, and metal complex dyes
 used in **wool** dyeing. Based on tabulated data it was shown
 that different leveling agents have a low effect in case of C.I.
 Acid Blue 185-dyed **wool**. The most appropriate leveling
 agent was Betaine Cl2.

CC 40-6 (Textiles and Fibers)
 ST **wool** dyeing acid reactive dye
 IT Dyeing
 (of **wool** with acid and reactive dyes, leveling agent
 effect on)

IT Dyes
 (acid, for **wool**, leveling agent effect on)

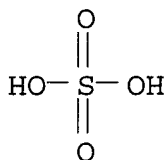
IT **Amines**, compounds
 (alkoxylated, sulfates (esters), leveling
 agents in dyeing of **wool**)

IT **Amines**, compounds
 (fatty, ethoxylated, leveling agents in dyeing of **wool**)

IT Surfactants
 (nonionic, ethoxylated, leveling agents in dyeing of **wool**
)

IT 4474-24-2, C.I. Acid Blue 80 12234-64-9, C.I. Acid Blue 185
 39354-69-3, C.I. Reactive Red 116 61814-66-2, C.I. Acid Blue 284
 61931-02-0, C.I. Acid Black 194

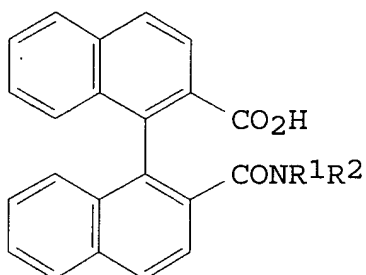
- (dyeing with, of **wool**)
- IT 683-10-3
(leveling agents, in dyeing of **wool**)
- L89 ANSWER 21 OF 36 HCA COPYRIGHT 2003 ACS
- 114:8260 Water-soluble, **fiber**-reactive azo dyes. Buech, Holger Michael; Russ, Werner Hubert; Tappe, Horst (Hoechst A.-G., Germany). Ger. Offen. DE 3942039 A1 19900705, 33 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1989-3942039 19891220. PRIORITY: DE 1989-3900114 19890104; DE 1989-3902030 19890125.
- GI For diagram(s), see printed CA Issue.
- AB The title dyes have substituted Et sulfone reactive groups attached through an amine to a triazine moiety, and are useful for dyeing or printing hydroxyl and/or carbonimide group-contg. **fabrics**. These dyes are useful for cold-dyeing processes, have a high dye-fixation yield, and form a strong **fiber**-dye bond. Thus, H acid was condensed with cyanuric fluoride, the condensate condensed with .gamma.-(.beta.-chloroethylsulfonyl)propylamine hydrochloride, and coupled with diazotized 2-amino-6-(.beta.-sulfatoethylsulfonyl)-1-naphthalenesulfonic acid, forming I, .lambda.max 539 nm, which dyed cotton **fabrics** fast red shades.
- IT 7664-93-9, Sulfuric acid, reactions
(**esterification** by, of hydroxyethylsulfonyl group-contg. azo dyes)
- RN 7664-93-9 HCA
- CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



- IC C09B762-507; C09B045-08; C09B043-16; C09B043-24
- CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 40
- ST water soluble reactive azo dye; **textile** printing reactive azo dye; cotton dyeing reactive azo dye
- IT **Textile** printing
(on hydroxyl and/or carbonamide group-contg. **fabrics**, **fiber**-reactive azo dyes for)
- IT Dyes, reactive
(azo, water-sol., manuf. of, for hydroxyl and/or carbonamide group-contg. **fabrics**)
- IT 7664-93-9, Sulfuric acid, reactions
(**esterification** by, of hydroxyethylsulfonyl group-contg. azo dyes)
- L89 ANSWER 22 OF 36 HCA COPYRIGHT 2003 ACS

113:191966 Liquid chromatography packing agents using 1,1'-binaphthyl-2,2'-dicarboxylic acid monoamides as chiral stationary phases and their use for resolution of racemates. Miyano, Sotaro; Oi, Shuichi; Yamashita, Junzo; Takai, Shinji (Tosoh Corp., Japan). Jpn. Kokai Tokkyo Koho JP 02075952 A2 19900315 Heisei, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1988-226424 19880912.

GI



I

AB 1,1'-Binaphthyl-2,2'-dicarboxylic acid monoamides [aR- or aS-I; R1, R2 = H, alkyl, (S)- or (R)-1-(1-naphthyl)ethyl] are prep'd. and are used as a chiral stationary phase for liq. chromatog. packing agents which enable the resoln. of a wide range of racemic compds., e.g. DL-amino acids (dl)-alcs., and biaryls having an axis of asymmetry. Thus, amidation of (dl)-1,1'-binaphthyl-2,2'-dicarboxylic acid with L-(-)-MeCHPhNH₂ in the presence of DCC in THF gave a diastereomeric mixt. of (aR)- and (aS)-I [R1 = H, R2 = (S)-MeCHPhNH] (II) which was dissolved in MeCN upon warming, concd. and cooled 15 h at 4.degree. to give 85.8% cryst. MeCN inclusion compd. with (aS)-II. Conc'n. of the filtrate followed by similar treatment with EtOH gave 80.8% EtOH inclusion compd. with (aR)-II. Refluxing (aS)-II with SO₂Cl₂ contg. DMF and **esterification** of the resulting crude (aS)-1,1'-binaphthyl-2-carboxylic chloride with EtOH contg. KOH followed by hydrolysis with 12.5% aq. NaOH under reflux and acidification with concd. HCl gave 91% (aS)-1,1'-binaphthyl-2,2'-dicarboxylic acid. Amidation of the latter with EtNH₂ in the presence of DCC and Et₃N and concn. of the resulting (aS)-I (R1 = H, R2 = NHEt) with aminoundecylated silica gel (prepn. given) in DMF contg. N-ethoxycarbonyl-2-ethoxy-1,3-dihydroquinoline gave a silica gel-bound chiral stationary phase. (aS)-I (R1 = H, R2 = NEt₂) and (aR)-I [R1 = H, R2 = (S)-1-(1-naphthyl)ethyl] were also prep'd. and similarly treated with the modified silica gel to give the corresponding stationary phases. Using these stationary phases, DL-3,5-(O₂N)₂C₆H₃CO-Ala-OBu, DL-3,5-(O₂N)₂C₆H₃CO-Phe-OBu, dl-N-3,5-dinitrobenzoyl-1-phenethylamine, dl-1,1'-bi-2-naphthol, etc. were resolved.

IC ICM G01N030-48

ICS B01D015-08; B01J020-22; C07B057-00; C07C233-65

CC 34-2 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 25

IT Alcohols, preparation

Amines, preparation

Amino acids, preparation

(resoln. of, by chromatog. using silica gel-bound
binaphthyldicarboxylic acid monoamides)

L89 ANSWER 23 OF 36 HCA COPYRIGHT 2003 ACS

109:8458 Detergent bar for washing **clothes** containing alkyl sulfate and alkyl ether sulfate. Ramachandran, Pallassana N.; MacRae, David M.; Barone, Patrizia; Gervasio, Gregorio C. (Colgate-Palmolive Co., USA). Braz. Pedido PI BR 8701053 A 19871222, 37 pp. (Portuguese). CODEN: BPXXDX. APPLICATION: BR 1987-1053 19870306. PRIORITY: US 1986-836906 19860306.

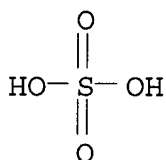
AB The title detergent bar contains 15-40% of a mixt. of Na alkyl sulfate and Na alkyl ether sulfate and has good foaming properties.

IT **7664-93-9D**, alkyl **esters** with **ethoxylated** alcs.

(laundry detergent bars contg., foaming)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C11D001-29

ICS C11D001-28; C11D003-06; C11D003-04

CC 46-5 (Surface Active Agents and Detergents)

IT **7664-93-9D**, alkyl **esters** with **ethoxylated** alcs.

(laundry detergent bars contg., foaming)

L89 ANSWER 24 OF 36 HCA COPYRIGHT 2003 ACS

109:8457 Bentonite for solidifying aqueous alkyl ether sulfate compositions for use in laundry detergent bars. Ramachandran, Pallassana N.; Barone, Patrizia (Colgate-Palmolive Co., USA). Braz. Pedido PI BR 8701055 A 19871222, 39 pp. (Portuguese). CODEN: BPXXDX. APPLICATION: BR 1987-1055 19870306. PRIORITY: US 1986-836908 19860306.

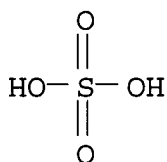
AB Aq. solns. or dispersions of alkyl ether sulfates are treated with bentonite in the prepn. of solid or semi-solid compns. suitable for use in the prepn. of detergent bars for washing soiled **textiles**. Bentonite facilitates the solidification process and also acts as a **fabric** softener.

IT **7664-93-9DP**, alkyl **esters** with **ethoxylated** alcs.

(laundry detergent bars contg. bentonite and, prepn. of)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C11D001-29
ICS C11D003-08; C11D003-04
CC 46-5 (Surface Active Agents and Detergents)
ST bentonite solidification alkyl ether sulfate; bar laundry alkyl ether sulfate; softener **fabric** bentonite detergent bar; ethoxylate alc sulfate solidification bentonite
IT Softening agents
(for **textiles**, bentonite as, laundry bars contg. alkyl ether sulfate and)
IT Bentonite, uses and miscellaneous
(solidifying agents and **fabric** softeners, in laundry bars contg. alkyl ether sulfates)
IT **7664-93-9DP**, alkyl **esters** with **ethoxylated** alcs.
(laundry detergent bars contg. bentonite and, prepn. of)

L89 ANSWER 25 OF 36 HCA COPYRIGHT 2003 ACS
106:72723 Emulsified cosmetics containing sulfuric, phosphoric, or glutamic acid derivatives. Mori, Kenji; Maeno, Kiyoshi (Kanebo, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 61246110 A2 19861101 Showa, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1985-87999 19850423.

AB An emulsified cosmetic contain a salt prepd. with (1) .gtoreq.1 compd. selected from the group comprising high member alc. sulfuric acid esters (or phosphoric acid esters) and N-long chain acyl glutamic acids, and (2) H₂N(CH₂)_xO(CH₂CH₂O)_y(CH₂)_xNH₂ (x = 1-3; y = 2-200) in addn. to oils and H₂O. The cosmetic is not irritating to skin and it maintains stability during storage and holds moisture in the skin when applied. Thus, a skin lotion consists of stearic acid 3.5, cetostearyl alc. 3.0, oleic acid monoglyceride 1.0, olive oil 20.0, H₂NCH₂O(CH₂CH₂O)₁₀CH₂NH₂ salt of cetyl alc. H₂SO₄ ester (an emulsifier) 2.0, and H₂O to 100% by wt.

IT **143-02-2D**, salts with **polyethylene glycol** bis(**aminoalkyl**) ethers
(cosmetics contg., as emulsifiers)

RN 143-02-2 HCA

CN 1-Hexadecanol, hydrogen sulfate (8CI, 9CI) (CA INDEX NAME)



IC ICM A61K007-00
CC 62-4 (Essential Oils and Cosmetics)

IT 56-86-0D, L-Glutamic acid, N-acyl derivs., salts with polyethylene glycol bis(aminoalkyl) ethers **143-02-2D**, salts with **polyethylene glycol bis(aminoalkyl)** ethers 2627-35-2D, salts with polyethylene glycol bis(aminoalkyl) ethers 3397-16-8D, N-Stearoylglutamic acid, salts with polyethylene glycol bis(aminoalkyl) ethers 7664-38-2D, Phosphoric acid, alkyl esters, salts with polyethylene glycol bis(aminoalkyl) ethers 7664-93-9D, Sulfuric acid, alkyl esters, salts with polyethylene glycol bis(aminoalkyl) ethers (cosmetics contg., as emulsifiers)

L89 ANSWER 26 OF 36 HCA COPYRIGHT 2003 ACS

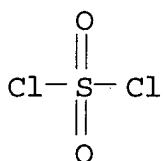
91:142344 Polyhydroxy polymer esters, especially cellulose esters. Wagenknecht, Wolfgang; Philipp, Burkart (Akademie der Wissenschaften der DDR, Ger. Dem. Rep.). Ger. (East) DD 135913 19790606, 10 pp. (German). CODEN: GEXXA8. APPLICATION: DD 1978-204981 19780425.

AB The reaction of cellulose, starch, or poly(vinyl alc.) dissolved in N2O4-DMF mixt. with inorg. acid chlorides gave polyol esters useful as ion exchanger, and for manuf. of fire-resistant **fibers** and films. Thus, 5 g linters was dissolved in 250 g DMF contg. 25.5 g N2O4, treated with 25.4 g PCl3, and stirred for 15 h at 20.degree. to give cellulose phosphite [37264-91-8] with 11.5% P and 0.8% Cl content.

IT **7791-25-5**
(**esterification** with, of polyols dissolved in DMF-nitrogen tetroxide)

RN 7791-25-5 HCA

CN Sulfuryl chloride (8CI, 9CI) (CA INDEX NAME)



IC C08B005-00; C08B031-06; C08F008-14

CC 43-3 (Cellulose, Lignin, Paper, and Other Wood Products)

IT 7719-12-2 **7791-25-5**

(**esterification** with, of polyols dissolved in DMF-nitrogen tetroxide)

L89 ANSWER 27 OF 36 HCA COPYRIGHT 2003 ACS

91:22348 Printing of **textile** floor coverings. Stegmann, Helmut; Bendorf, Ullrich; Scheller, Manfred; Heise, Walter; Doerffeldt, Juergen; Nebe, Ronald (Ger. Dem. Rep.). Ger. (East) DD 130054 19780301, 6 pp. (German). CODEN: GEXXA8. APPLICATION: DD 1976-196635 19761227.

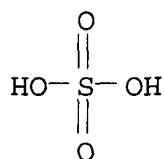
AB In **color** printing on floor coverings, esp. flocked polyamide, by rotary printing, good **dye** deposition and utilization are achieved by using pastes contg. 2-4 g/kg of a foaming agent consisting of coco-fatty acid diethanolamide 25-35,

ammonium coco-fatty alc. sulfate 25-35, coco-fatty alc. ether sulfate 25-35, **ethoxylated** fatty amine 2.5-7.5, and BuOH [71-36-3] 2.5-7.5%. The chief advantage of this particular foamer is its relatively low cost. Acid and(or) metal complex **dyes** are used in the pastes, and incorporation of 10-50 g/kg of a mixt. of polyhydric alc. and org. base is advantageous.

IT **7664-93-9D, esters** with coco fatty alcs. and coco fatty alc. ethers, salts **25322-68-3D**, ethers with N-(hydroxyethyl) fatty amines
(foaming agents, printing pastes contg., for polyamide floor coverings)

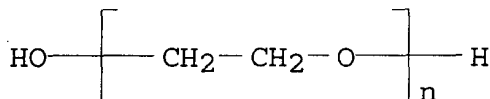
RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



RN 25322-68-3 HCA

CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



IC D06P001-62; D06P001-649

CC 39-7 (Textiles)

IT Polyamide **fibers**, uses and miscellaneous
(floor coverings, printing on, foaming agents for pastes in)

IT **Textile** printing
(on polyamide floor coverings, foaming agents for pastes in)

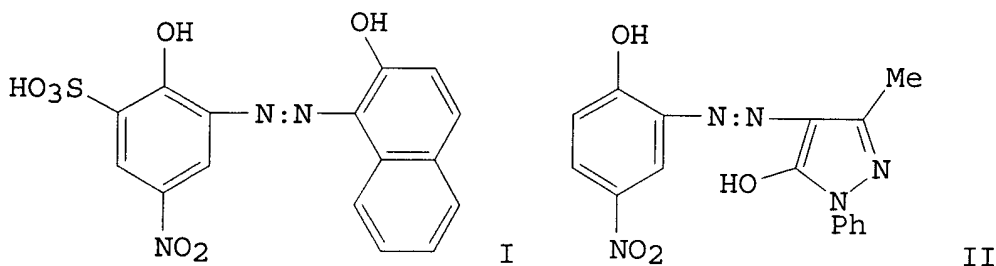
IT **Amines, compounds**
(fatty, **ethoxylated**, foaming agents, printing pastes contg., for polyamide floor coverings)

IT 71-36-3, uses and miscellaneous 111-42-2D, N-(coco-fatty acyl) derivs. **7664-93-9D, esters** with coco fatty alcs. and coco fatty alc. ethers, salts **25322-68-3D**, ethers with N-(hydroxyethyl) fatty amines
(foaming agents, printing pastes contg., for polyamide floor coverings)

L89 ANSWER 28 OF 36 HCA COPYRIGHT 2003 ACS

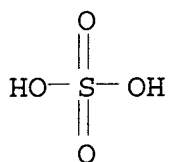
89:148082 Dyeing wool-containing fiber material. Abel, Heinz; Berger, Alfred (Ciba-Geigy A.-G., Switz.). Ger. Offen. DE 2802304 19780727, 51 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1978-2802304 19780120.

GI



- AB Compns. for increasing dye diffusion, improving levelness, promoting complete exhaustion of the dyebath, and shortening the dyeing time when dyeing **wool** fibers with anionic dyes in neutral or acid baths contain a reaction product of a C8-22 fatty acid and a primary or secondary amine contg. a hydroxyalkyl or alkoxyalkyl group, a nonionic surfactant with a formula $RO(CH_2CHR_{10})_nH$ ($R =$ C8-12 alkyl or alkenyl, o-phenylphenyl, or alkylphenyl; $R_1 = H$ or Me; $n = 3-12$), a water-immiscible org. solvent b. $>80^\circ$, an anionic surfactant with the formula $R_{20}(CH_2CHR_{30})_mX$; $R_4CO_2(CH_2CHR_{30})_mX$, or $R_5N[(CH_2CHR_{40})_rX][(CH_2CHR_{40})_2X]$ ($R_2 =$ a C8-22 aliph. hydrocarbon radical, C10-22 cycloaliph. hydrocarbon radical, o-phenylphenyl, or alkylphenyl; $R_3 = H$ or Me, $R_4 = H$, Me, or Ph; $R_5 =$ a C16-18 aliph. hydrocarbon radical; $X =$ an inorg. O-contg. acid radical, a dicarboxylic acid radical, or CH_2CO_2H ; $m = 1-20$; $r + s = 2-9$), and, optionally, an amphoteric surfactant. Thus, 100 kg **wool** was immersed in a bath contg. 1500 g 80% HOAc and 2000 g prepn. consisting of 1:1 **polyethylene glycol** lauryl ether **sulfate** bis(.beta.-hydroxyethyl)**amine** salt [58855-36-0]-coconut oil fatty acid N,N-bis(.beta.-hydroxyethyl)amide mixt. 15, polyethylene glycol 2-ethylhexyl ether [26468-86-0] 20, $(BuO)_3PO$ [126-73-8] 15, 40% polyethylene glycol nonylphenyl ether sulfate ester ammonium salt [9051-57-4] 5, and water 45%. After 10 min, 1500 g 1:2 Cr complexes of dyes with the formula I and II were added. The **wool** was dyed a level red-brown color with good fastness to rubbing and wet processing.
- IC D06P003-14
- CC 39-7 (Textiles)
- ST dyeing **wool** assistant; fatty acid amide dyeing assistant; polyethylene glycol deriv dyeing assistant; surfactant dyeing assistant **wool**
- IT Tallow
(fatty amide, polyethylene glycol sulfate ammonium salt, assistants, in dyeing of **wool** with anionic dyes)
- IT Dyeing
(of **wool**, with anionic dyes, assistants for)
- IT Surfactants
(amphoteric, assistants, in dyeing of **wool** with anionic dyes)
- IT Surfactants

- (anionic, assistants, in dyeing of **wool** with anionic dyes)
- IT Fatty acids, compounds
(coco, bis(hydroxyalkyl)amides, assistants, in dyeing of **wool** with anionic dyes)
- IT Surfactants
(nonionic, assistants, in dyeing of **wool** with anionic dyes)
- IT 110-80-5 120-40-1 126-73-8, uses and miscellaneous 9051-57-4
26468-86-0 32171-23-6 58855-36-0
(assistants, in dyeing of **wool** with anionic dyes)
- L89 ANSWER 29 OF 36 HCA COPYRIGHT 2003 ACS
- 89:113094 Surfactant compositions. (GAF Corp., USA). Jpn. Tokkyo Koho JP 53018991 B4 19780617 Showa, 5 pp. (Japanese). CODEN: JAXXAD. APPLICATION: JP 1971-15028 19710317.
- AB Wetting agents for **textiles** were prepd. from 30-90 parts octyl phosphate and 10-70 parts alkoxyated alc. sulfate salts and were effective at electrolyte concn. <10%. Thus, a wetting agent was prepd. from 75% 2-ethylhexyl phosphate and 25% alkoxyated alc. (C8-10) sulfate ammonium salt.
- IT **7664-93-9D, ester with alkoxyated**
alcs., ammonium salts
(wetting agents, contg. ethylhexyl phosphate, for **textiles**)
- RN 7664-93-9 HCA
- CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)

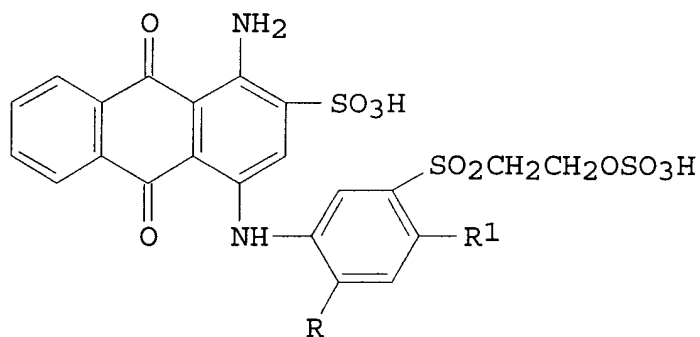


- IC C11D001-29
- CC 46-4 (Surface Active Agents and Detergents)
Section cross-reference(s): 39
- ST **textile** wetting agent; ethylhexanol phosphate wetting agent; alkoxyated alc wetting agent
- IT Wetting agents
(ethylhexyl phosphates and alkoxyated alc. sulfate ammonium salts, for **textiles**)
- IT Alcohols, compounds
(polyoxyalkylated, sulfates, wetting agents for **textiles**)
- IT 7664-38-2D, 2-ethylhexyl esters
(wetting agents, contg. alkoxyated alc. sulfate ammonium salt, for **textiles**)
- IT **7664-93-9D, ester with alkoxyated**
alcs., ammonium salts
(wetting agents, contg. ethylhexyl phosphate, for

textiles)

L89 ANSWER 30 OF 36 HCA COPYRIGHT 2003 ACS
 89:108836 Anthraquinonesulfuric acid semiester compounds. Hoyer, Ernst; Steuernagel, Hans Helmut; Wagner, Dieter (Hoechst A.-G., Fed. Rep. Ger.). Ger. Offen. DE 2634855 19780629, 16 pp. Addn. to Ger. Offen. 2,634,909. (German). CODEN: GWXXBX. APPLICATION: DE 1976-2634855 19760803.

GI



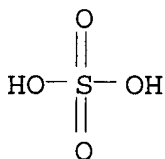
I

AB Title compds. I (R = H, lower alkoxy, CO2H; R1 = H, lower alkoxy), useful as dyestuffs, were prepd. by treating the corresponding hydroxyethyl compd. with 1-5 molar equiv. (based on SO3) of 92-100% H2SO4 or oleum in a kneader mixer. Thus, 3.281 wt. parts of Na 1-amino-4-[3-[(2-hydroxyethyl)sulfonyl]anilino]anthraquinone-2-sulfonate were kneaded with 1.042 vol. parts of 100% H2SO4, the mass heated to 100.degree. in 25 min, and kneaded at 100-5.degree. for 40 min to give I (R = R1 = H), recovered as the di-Na salt.

IT 7664-93-9, reactions
 (esterification with, of amino[[(hydroxyethyl)sulfonyl]anilino]anthraquinonesulfonic acid by kneading)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC C09B062-72

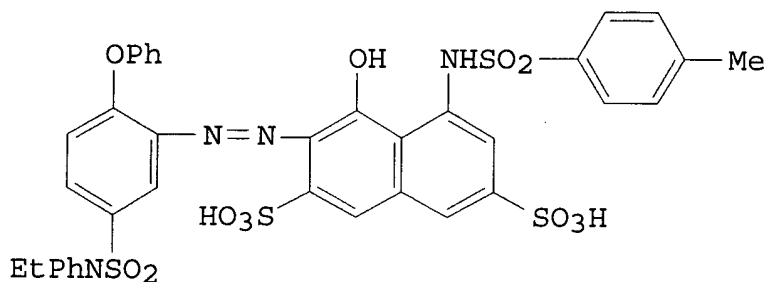
CC 26-5 (Condensed Aromatic Compounds)
 Section cross-reference(s): 40

IT 7664-93-9, reactions
 (esterification with, of amino[[(hydroxyethyl)sulfonyl]anilino]anthraquinonesulfonic acid by kneading)

L89 ANSWER 31 OF 36 HCA COPYRIGHT 2003 ACS

88:63235 Dyeing **wool**-containing fibrous materials. Lauton, Alain; Berendt, Hans Ulrich (Ciba-Geigy A.-G., Switz.). Ger. Offen. DE 2724644 19771215, 23 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1977-2724644 19770601.

GI



AB N-methylolureas and their etherified derivs. are used as **wool**-protecting agents in the dyeing of **wool**-contg. textiles with anionic dyes. Thus, 25 g 55:45 polyester-**wool** fabric was treated 5 min at 40.degree. in a liquor (adjusted to pH 5.5 with HOAc) consisting of 300 mL water and N,N'-dimethylolethyleneurea [136-84-5] 0.5, **sulfated fatty amine polyethylene glycol ether** 0.125, 2:1 trichlorobenzene-diphenyl mixt. 0.38, and NaOAc 0.66 g. The liquor was heated to 120.degree. in 30 min and 0.5 g dye mixt. consisting of 4-[(2,4-dinitrophenyl)azo]-5-imino-3-methyl-1-phenyl-3-pyrazoline 1.6, 50:50 mixt. of 2-[(1-amino-4-hydroxyanthraquinon-2-yl)loxy]ethyl Et carbonate and the corresponding Ph carbonate 60.0, 2,4-NC(O2N)C6H3N:NC6H4[N(CH2CH2OAc)2]-4 5.0, bisphenol A bis[2-[2-amino-8-hydroxy-6-sulfo-1-naphthyl)azo]benzenesulfonate] 4.0, bisphenol A bis[2-[(2-amino-5-sulfo-1-naphthyl)azo]benzenesulfonate] 3.3, I 15, and Glauber's salt 11 parts was added when the temp. reached 70.degree.. After 40 min the liquor was cooled to 60.degree. and the fabric was rinsed and dried to give a level red lone-on-tone dyeing without damage to the **wool**.

IC D06P003-16

CC 39-7 (Textiles)

ST dyeing **wool** textile assistant; methylolurea dyeing assistant; methylolethyleneurea dyeing assistant; polyester **wool** textile dyeing

IT Dyeing
(of polyester-**wool** and **wool** textiles,
assistants for)

IT 136-84-5

(assistants, in dyeing of polyester-wool and wool textiles with anionic dyes)

L89 ANSWER 32 OF 36 HCA COPYRIGHT 2003 ACS

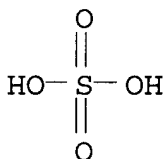
86:74896 Wetting and defoaming agent. Abel, Heinz; Berger, Alfred (Ciba-Geigy A.-G., Switz.). Ger. Offen. DE 2625707 19761223, 62 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1976-2625707 19760609.

AB The ammonium salt of a sulfate ester of an ethoxylated alkylphenol, p-[Me(CH₂)₇]C₆H₄O(CH₂CH₂O)_nCH₂CO₂Na (av. n = 4) (I) [38142-12-0], or a similar surfactant was used with a propoxylated diol, triol, or polyamine and, in some cases, a fatty alc., an ethoxylated alkylphenol, and/or a silicone to prep. wetting and defoaming agents useful in **dyeing** baths, papermaking pulps, wastewater treatment app., etc. Thus, 70 parts 40% aq. I soln. was mixed at 70.degree. with propoxylated glycerol [25791-96-2] (mol. wt. 3100) 30, silicone oil 1, and water 49 parts to prep. a wetting and defoaming agent.

IT **7664-93-9D, esters with ethoxylated alkylphenols, ammonium salts**
(wetting and antifoaming agents contg.)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC B01D019-04

CC 46-4 (Surface Active Agents and Detergents)
Section cross-reference(s): 39, 43, 60

ST wetting antifoaming agent; polyoxyalkylene deriv wetting agent;
dyeing wetting antifoaming; papermaking antifoaming agent;
water waste antifoaming agent

IT Antifoaming agents

Wetting agents

(contg. anionic and nonionic alkoxyolate derivs., in
textile finishing, papermaking, and wastewater treatment)

IT **Textiles**

(wetting and antifoaming agents in **dyeing** and finishing
of)

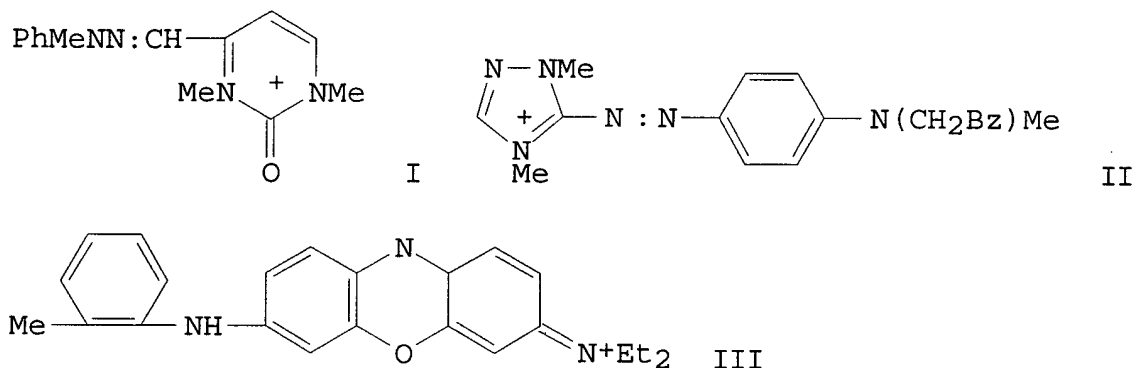
IT 75-21-8D, reaction products with alkylphenols, sulfate esters,
ammonium salts 75-56-9D, reaction products with
dipropylenetriamine **7664-93-9D, esters with**
ethoxylated alkylphenols, ammonium salts 25322-69-4
25497-48-7D, propoxylated 25723-16-4 25791-96-2 27193-28-8D,
ethoxylated, sulfate ester, ammonium salts 37208-53-0 37293-47-3
38142-12-0 58865-77-3D, ethoxylated, sulfate ester, ammonium salts
61803-32-5 61803-33-6

(wetting and antifoaming agents contg.)

L89 ANSWER 33 OF 36 HCA COPYRIGHT 2003 ACS

85:7188 One-step dyeing of mixtures of polyamide and polyacrylonitrile fibers. Rexroth, Erhard; Daeuble, Manfred; Heissler, Heniz; Paulig, Juergen; Rudolph, Walter (BASF A.-G., Fed. Rep. Ger.). Ger. Offen. DE 2442421 19760401, 10 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1974-2442421 19740905.

GI



AB Acrylic fiber-**wool** blend fabrics are dyed deep shades with good fastness to rubbing by a 1-stage process in aq. dyebaths contg. sulfo-contg. 1:2 metal complex dyes and cationic dyes when the baths contain 0.1-0.5 part ethoxylated C16-20 fatty amine, 0.2-1.5 parts polyethylene glycol ether with C14-20 fatty alc. and, optionally, 0.1-0.5 part alkali or **amine** salts of **polyethylene glycol** alkylphenyl ether **sulfates** contg. C6-10 alkyl substituents and(or) polyethylene glycol ether sulfates from C14-20 fatty alcs. Thus, 100 parts 50:50 polyacrylonitrile-**wool** fabric was added to 2000 parts aq. liquor contg. I 0.5, II 0.5, III 0.7, metal complex dye of 2 moles C.I. 15710 and 1 mole Cr 2.3, ethoxylated oleylamine [26635-93-8] 0.2, polyethylene glycol stearyl ether [9005-00-9] 0.4, polyethylene glycol stearyl ether sulfate sodium salt [34431-26-0] 0.1, and HOAc 0.3 parts. The fabric was heated 90 min at 100.degree. to give a deep black dyeing with good fastness to rubbing, light, and washing.

IC D06P

CC 39-7 (Textiles)

ST dyeing **wool** acrylic textile; polyethylene glycol deriv dyeing auxiliary

IT Acrylic fibers

(dyeing of **wool** and, single-bath, by cationic dyes and metal complex dyes, polyethylene glycol derivs. as assistant in)

IT Dyeing

(of acrylic fiber-**wool** textiles, single-bath, by cationic dyes and metal complex dyes, polyethylene glycol derivs. as assistants in)

IT 9004-95-9 9005-00-9 9014-90-8 26635-92-7 26635-93-8
27306-79-2 34431-26-0

(assistants, in single-bath dyeing of acrylic fiber-**wool**
textiles by cationic dyes and metal complex dyes)

L89 ANSWER 34 OF 36 HCA COPYRIGHT 2003 ACS

79:65786 Aminoalkyl sulfates. Selzneva, V. E.; Zhuk, D. S. (Topchiev, A. V., Institute of Petrochemical Synthesis). U.S.S.R. SU 316330 19730522 From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1973, 50(22), 200. (Russian). CODEN: URXXAF. APPLICATION: SU 1969-1386727 19691219.

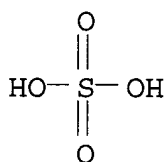
AB (H₂NZ₂)₂SO₄ (Z = alkylene) were prepd. from H₂NZO₂H, concd. H₂SO₄, and a Lewis base (DMF, pyridine, Me₂SO, quinoline, or MeCN).

IT 7664-93-9, reactions

(**esterification** of amino alcs. by, catalysts for)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC C07C

CC 23-8 (Aliphatic Compounds)

IT **Amines, preparation**

(contg. alkyl sulfate groups, catalysts for)

IT 7664-93-9, reactions

(**esterification** of amino alcs. by, catalysts for)

L89 ANSWER 35 OF 36 HCA COPYRIGHT 2003 ACS

71:92613 Molded article of wearing apparel. Westervelt, William P., Jr.; Cain, James P.; Cross, John H. (Deering Milliken Research Corp.). S. African ZA 6806012 19690310, 38 pp. (English). CODEN: SFXXAB. APPLICATION: ZA 19680917.

AB A composite material composed of a fixed structure layer of a synthetic thermoplastic compn. and a layer of a fabric contg. **wool** (contacted with a reducing agent and an aldehyde-generating compd.) bonded with an adhesive is molded to form a hat with improved dimensional stability. Thus, **woolen** fabrics were treated with a soln. contg. NaHSO₃ 4.3, N-methylolacetamide 10, PhCHO 0.5, poly(vinyl chloride) emulsion (Geon 576) 20, a water repellent fluorochem. (FC-208) 2, and H₂O 63.2%. Other treating solns. used contained **ethylene glycol**, diammonium phosphate, **monoethanolamine sulfate**, paraformaldehyde, **ethanolamine sulfate**, N-methylolformamide, 3-(perfluorooctyl)propanol, and poly(vinyl acetate). A woven monofilament polyester fabric was sprayed with a PhMe soln. of a urethane adhesive and a woven **wool** fabric 46.7 mils thick weighing 7.46 oz./yd.2 was applied to each side of

the polyester. A composite was formed under pressure and dried. Sqs. of the fabric (20 in.) were molded into hats at 150.degree. and showed good shape retention properties and water repellancy. A felted **wool** fabric and a composite prepd. with a lining material were similarly molded.

CC 39 (Textiles)

ST **wool** felts fabrics molded; fabrics felts **wool** molded; molded **wool** felts fabrics

IT Textiles

(molded wearing apparel from plastics and **woolen**)

L89 ANSWER 36 OF 36 HCA COPYRIGHT 2003 ACS

59:82727 Original Reference No. 59:15432g-h,15433a-b Acid esters of polyglycol amines for use in **dyeing**. (CIBA Ltd.). GB 9204513 19630424, 7 pp. (Unavailable). APPLICATION: GB 19600629.

GI For diagram(s), see printed CA Issue.

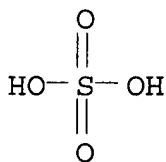
AB The acid **esters** derived from **H2SO4** or **H3PO4** and OH compds. of the formula I, in which R and R' are aliphatic hydrocarbon residues, R contg. .ltoreq.12 and R' .gtoreq.11 C atoms, m + n being 9-101, and the H2O-sol. salts of these acid esters are useful as leveling agents in **dyeing** or for brightening or stripping **dyeings**. Thus, 92 parts of ace m. propylenediamine in which one amino group contains the hydrocarbon residue corresponding to soybean fatty acid, 70.5 parts oleic acid, 0.7 part p-toluenesulfonic acid, and 200 parts of xylene (II) are refluxed for 15 hrs. while passing N through the mass, the H2O formed being continuously removed. II is then removed by distn. in vacuo to give 156.5 parts acylation product (III). III (95.5 parts) is then heated to 160-70.degree. in the presence of 1 part finely divided Na in a stream of N; a finely distributed stream of ethylene oxide (IV) is then introduced until 106 parts have been absorbed (3-4 hrs.). The IV adduct (107 parts) is melted with stirring at 60.degree. and 17.6 parts urea is added during 15 min. followed by addn. of 17.6 parts sulfamic acid during 30 min. The mixt. is further heated for 6 hrs. on a boiling H2O bath to give 141.5 parts of the NH4 salt (V) of the **acid sulfuric acid ester** contaminated with a small amt. of urea. These compds. give uniform **dyeing** of **wool** and 50-50 **wool**-polyester yams with metal complex **dyes**. For example, 100 parts **wool yarn** was immersed at 60.degree. in bath contg. H2O 4000, 40% AcOH 4, Na2SO4.7H2O 10, V 1, and the 1:2 Cr complex 0.5 part of 2,4-HO(MeNHSO2)C6H3NH2 .fwdarw. 1,5,8-HO(Cl)2Cl10H6. The **yarn** was **dyeed** for 0.5 hr. at the boil, giving a level blue **dyeing** of good abrasion resistance.

IT 7664-93-9, **Sulfuric acid**

(**esters**, with ethylene oxide polymers of N-acyl N'-alkyl derivs. of 1,2-propanediamine, as leveling agents in **dyeing**)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IT 75-21-8, Ethylene oxide
 (polymers with N-acyl N'-alkyl derivs. of 1,2-propanediamine,
 acid esters, as leveling agents in **dyeing**)
 RN 75-21-8 HCA
 CN Oxirane (9CI) (CA INDEX NAME)



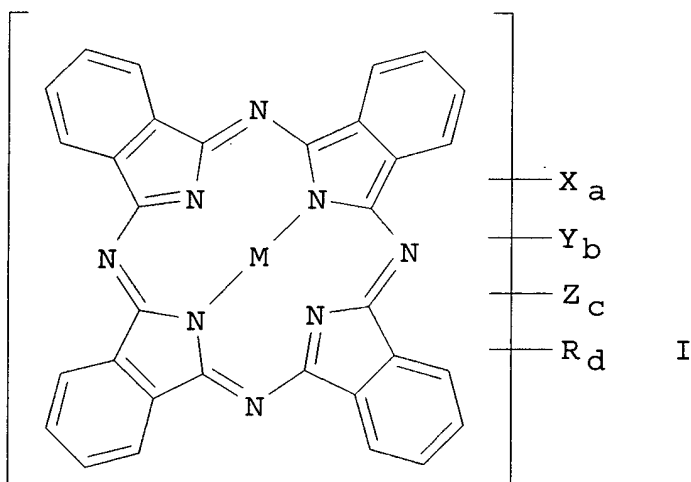
CC 47 (Textiles)
 IT **Dyes**
 (brightening or stripping of, **polyalkylene glycol** amine acid esters for)
 IT Esters
 (**dyeing** blends of **fibers** from poly- with **wool** with metal complex **dyes**, acid esters of polyglycol amines for level)
 IT Amides
 (of glycols (poly-), acid esters of partial, for **dyeing** and **dye** brightening or stripping)
 IT **Amines**
 (of polyglycols, acid esters of, for **dyeing** and **dye** brightening or stripping)
 IT **Dyeing**
 (polyalkylene glycol amine acid esters for)
 IT **Glycols**
 (polyalkylene, amino derivs., acid esters, for **dyeing** and **dye** brightening or stripping)
 IT Phosphoric acid, esters (acid) of
 (with ethylene oxide polymers of N-acyl N'-alkyl derivs. of 1,2-propanediamine, as leveling agents in **dyeing**)
 IT 5329-14-6, Sulfamic acid
 (esters with ethylene oxide polymers of N-acyl N'-alkyl derivs. of 1,2-propanediamine, as leveling agents in **dyeing**)
 IT 7664-93-9, Sulfuric acid
 (esters, with ethylene oxide polymers of N-acyl N'-alkyl derivs. of 1,2-propanediamine, as leveling agents in **dyeing**)
 IT 75-21-8, Ethylene oxide
 (polymers with N-acyl N'-alkyl derivs. of 1,2-propanediamine, acid esters, as leveling agents in **dyeing**)
 IT 78-90-0, 1,2-Propanediamine
 (N-acyl N'-alkyl derivs., polymers with ethylene oxide and acid esters, as leveling agents in **dyeing**)

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L90 ANSWER 1 OF 15 HCA COPYRIGHT 2003 ACS

137:326557 Metallocenyl phthalocyanines, their production and their use in optical recording. Beyrich, Juergen; Blattner, Rudolf; Budry, Jean-Luc; Freitag, Wolfgang; Morton, Colin; Murphy, Gerald Anthony; Schmidhalter, Beat; Schulz, Michael; Spahni, Heinz; Stern, Christian; Wolleb, Annemarie; Wolleb, Heinz; Zoelper, Roland (Ciba Specialty Chemicals Holding Inc., Switz.). PCT Int. Appl. WO 2002083796 A1 20021024, 60 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-EP3945 20020409. PRIORITY: CH 2001-693 20010417.

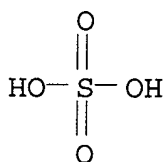
GI



AB Disclosed are mixts. of metallocenyl phthalocyanines which are obtainable by reacting a mixt. of phthalocyanine I (X = halogen; Y = org. group attached through O, N, or S; Z = formyl, hydroxymethyl, or org. group contg. N or O and attached through C; R = carboxymethyl, carboxy, chlorocarbonyl; 1-hydroxyethyl; M = divalent metal or metal-contg. group; a = 0-3; b = 3-5; c = 0-1; d = 1) and phthalocyanine II (I; d = 2) with a metallocene compd. in the

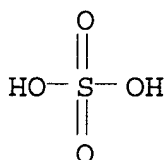
presence of a catalyst, processes for prepg. them, and their use for, i.a., optical recording and optical recording media. Oligomeric products bridged by CH₂OCH₂ groups may also be obtained. In an example, copper .alpha.,.alpha.',.alpha.',.alpha.'''-tetrakis(2,4-dimethyl-3-pentyloxy)phthalocyanine was formylated with N-methylformanilide and the mixt. of mono- to triformyl products was reduced to provide hydroxymethyl groups. This product was then esterified with ferrocenecarboxylic acid in the presence of H₂SO₄ to give a product suitable for optical recording.

IT 7664-93-9, Sulfuric acid, uses
 (esterification catalyst; prodn. of phthalocyanine
 deriv. ferrocenylcarboxylic ester products for optical recording
 materials)
 RN 7664-93-9 HCA
 CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C09B047-24
 ICS G11B007-24; B41M005-26
 CC 41-7 (Dyes, Organic Pigments, Fluorescent Brighteners, and
 Photographic Sensitizers)
 Section cross-reference(s): 29, 74, 78
 IT **Dyes**
 (prodn. of phthalocyanine deriv. ferrocenylcarboxylic ester
 products)
 IT 104-15-4, p-Toluenesulfonic acid, uses 7664-93-9, Sulfuric
 acid, uses
 (esterification catalyst; prodn. of phthalocyanine
 deriv. ferrocenylcarboxylic ester products for optical recording
 materials)
 L90 ANSWER 2 OF 15 HCA COPYRIGHT 2003 ACS
 134:224331 Fluorinated surfactants with detergent properties and their
 manufacture. Dehelean, Teodor; Valceanu, Radu; Valceanu, Nicoleta;
 Gusatu, Nicolae (Institutul de Chimie, Timisoara, Rom.). Rom. RO
 114267 B1 19990226, 5 pp. (Romanian). CODEN: RUXXA3. APPLICATION:
 RO 1993-9300898 19930625.
 AB The surfactants, with moderate foaming properties, are homologous
 mixts. having the structure C_nF_{2n+1}CO(OCH₂CH₂)_mOH (n = 6-8; m =
 4-14) and mol. wt. 200-600. They are prepd. by esterification at
 115-120.degree. for 4-6 h in the presence of concd. H₂SO₄ (d. 1.89
 kg/dm³) as catalyst, followed by neutralization with 10% NaOH soln.
 IT 7664-93-9, Sulfuric acid, uses
 (esterification catalyst; prepn. of fluorinated
 surfactants with detergent properties)
 RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C11D001-72

CC 46-3 (Surface Active Agents and Detergents)

ST **polyethylene glycol** monoester perfluoroalkanoic acid; foaming moderate surfactant

IT 7664-93-9, Sulfuric acid, uses
(**esterification** catalyst; prepn. of fluorinated surfactants with detergent properties)

IT 39388-02-8P, **Polyethylene glycol** mono(perfluorooctanoate) 61697-97-0P, **Polyethylene glycol** mono(perfluorononanoate) 160882-35-9P, **Polyethylene glycol** mono(perfluoroheptanoate) (fluorinated surfactants with detergent properties)

L90 ANSWER 3 OF 15 HCA COPYRIGHT 2003 ACS

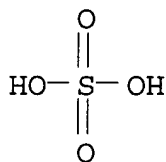
133:48973 Foldable intraocular lenses manufactured by process including annealing and esterification. Fujino, Shinya; Nakahata, Yoshihiro (Nidek K. K., Japan). Jpn. Kokai Tokkyo Koho JP 2000167038 A2 20000620, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-343451 19981202.

AB The lenses with increased resoln. are manufd. by (1) heating a lens material prepd. from a compn. contg. carboxy-contg. monomers until the internal distortion of the material is eliminated, (2) gradually cooling the heated material, (3) fixing the material on a jig for cutting by such a way that the material dose not distort, and (4) softening the material cut into lens shape by upon esterification. Fixation on a jig may be performed using double-stick adhesive tapes or UV-curable adhesives. A mixt. of 35 parts acrylic acid and 35 parts phenoxyethyl methacrylate was treated with 3% **ethylene glycol** dimethacrylate and 0.2% AIBN at 60.degree. for 24 h then at 95.degree. for 24 h to give a polymer plate. The plate was cut into buttons (diam. 6.5 mm, thickness 2 mm) and the buttons were heated in an oven at 100.degree. for 10 h and then cooled to room temp. over 5 h. The annealed products were fixed on a jig with a double-stick adhesive tape, cut into a lens shape, and then treated with a mixt. of PrOH and H2SO4 under reflux for 14 days to give foldable soft lenses.

IT 7664-93-9, Sulfuric acid, uses
(**esterification** catalysts; foldable intraocular lenses manufd. by annealing materials to eliminate distortion, cutting, and esterification)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



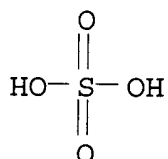
- IC ICM A61L027-00
 CC 63-7 (Pharmaceuticals)
 Section cross-reference(s): 38
 IT 7664-93-9, Sulfuric acid, uses
 (esterification catalysts; foldable intraocular lenses
 manufd. by annealing materials to eliminate distortion, cutting,
 and esterification)
- L90 ANSWER 4 OF 15 HCA COPYRIGHT 2003 ACS
 133:5396 Trimellitic anhydride ester mixture and preparation process.
 Mirci, Liviu Eduard (Rom.). Rom. RO 109644 B1 19950428, 7 pp.
 (Romanian). CODEN: RUXXA3. APPLICATION: RO 1994-9401466 19940905.
- AB The tricarboxylic esters of 1,2,4-benzenetricarboxylic anhydride and
 R1 = 2-phenoxyethanol and R2 aliph. alcs., i.e., butanol, n-hexanol,
 n-octanol, n-decanol, n-tridecanol, have superior thermal stability,
 Hildebrand .delta.-soly. of 9.66 in PVC oil, crit. soln. temp.
 112-141.degree., and plasticizer activity toward PVC and
 pseudoplastic characteristics suitable for tribol. fluid uses and
 are prepd. by esterification in a homogeneous system. The
 acid-catalyzed esterification is carried out in an arom. solvent
 that forms an azeotrope with the water byproduct in two stages: (1)
 esterification of 1:1 anhydride:alc. using 0.01-3% acid catalyst,
 e.g., p-toluenesulfonic acid, benzenesulfonic acid, sulfuric acid in
 15-150% solvent, i.e., benzene., toluene, or xylene, for 1.5-2 h to
 form the monoester. Stage (2) comprises addn. of 2.01-2.2 mol alc.
 to 1 mol anhydride (0.05-10% excess alc.) adjusting the temp. to
 reflux at 100-160.degree. to effect addnl. esterification for 3-6 h;
 the oily product is distd. at 210-220.degree. and the triester is
 purified by neutralization with 5-10% aq. alkali carbonate soln.,
 rinsed several times with cold water to neutral pH,
coloration is removed with activated carbon, and the final
 product is recovered after filtration. In a three-neck reaction
 vessel with a condenser and a Dean-Stark trap were placed 1.0 mol
 trimellitic anhydride, 1.0 mol 2-phenoxyethanol, 5 g
 p-toluenesulfonic acid, and 100 mL toluene; in the Dean-Stark cup
 were placed 115 mL toluene; the mixt. was stirred and heated to
 reach reflux (115-120.degree.) and kept for 1.5-2 h. The reaction
 mixt. was cooled to 50-60.degree. and 2.17 mol Bu alc. were added
 and reflux was resumed for 3.5-4 during which 36 mL water were
 extd.; the temp. was increased slowly from 110 to 145.degree.
 toluene was distd. off, and the crude product was recovered.
 Washing cycles for 3-5 h with 5% aq. sodium carbonate at
 50-60.degree. and with water led to recovery of a material that was
 distd. under vacuum at 210-220.degree. and 10-50 mm Hg and the
 distillate was treated with activated carbon and filtered to recover

2-phenoxyethanol-n-butanol trimellitate of mol. formula C₂₅H₃₀O₇, mol. wt. 442, d. 1.1294 g/cm³, refractive index of 1.5258, crit. soln. temp. 112.degree., max. plasticity 28.7 m, viscosity 1.18-0.76 x 10⁴ cP at 20.degree., and soly. parameter of 9.91 cal/cm³.

IT 7664-93-9, Sulfuric acid, uses
(**esterification** catalyst; two-step esterification process in manuf. of trimellitic anhydride mixed aliph.-arom. esters suitable as PVC plasticizers and tribol. fluids)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C07C069-76

CC 37-2 (Plastics Manufacture and Processing)
Section cross-reference(s): 45, 51

IT 98-11-3, Benzenesulfonic acid, uses 104-15-4, uses
7664-93-9, Sulfuric acid, uses
(**esterification** catalyst; two-step esterification process in manuf. of trimellitic anhydride mixed aliph.-arom. esters suitable as PVC plasticizers and tribol. fluids)

L90 ANSWER 5 OF 15 HCA COPYRIGHT 2003 ACS

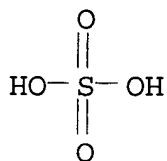
132:24697 Fuel lubricity additives. Williamson, Will F.; Landis, Phillip S.; Rhodes, Blaine N. (International Lubricants, Inc., USA). PCT Int. Appl. WO 9961563 A1 19991202, 22 pp. DESIGNATED STATES: W: AU, BR, CA, IL, MX, NO, NZ; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1999-US11627 19990526. PRIORITY: US 1998-85115 19980526.

AB Disclosed is a fuel lubricity additive, made by a two-step process wherein the first step is co-reacting an unsatd. base oil, predominantly from vegetable oil sources, and a compd. having a diene structure and a carboxylic acid group, wherein the second step is esterifying or amidifying the free carboxylic acid group of anhydride group with a polyhydroxy-contg. compd. or polyamine compd. to form the final fuel lubricity additive useful in diesel fuels. The inventive fuel lubricity additive also is useful as a dispersant.

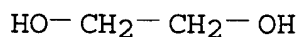
IT 7664-93-9, Sulfuric acid, uses
(**esterification** catalyst; in prepn. of fuel lubricity additives)

RN 7664-93-9 HCA

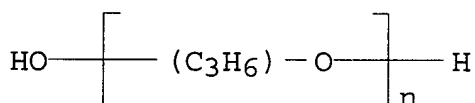
CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IT 107-21-1, Ethylene glycol, reactions
 25322-69-4, Polypropylene glycol
 (in prepn. of fuel lubricity additives)
 RN 107-21-1 HCA
 CN 1,2-Ethanediol (9CI) (CA INDEX NAME)



RN 25322-69-4 HCA
 CN Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-
 (9CI) (CA INDEX NAME)



IC ICM C10L001-18
 ICS C07C059-00
 CC 51-9 (Fossil Fuels, Derivatives, and Related Products)
 IT Alcohols, reactions
 (ethoxylated; in prepn. of fuel lubricity additives)
 IT 104-15-4, p-Toluenesulfonic acid, uses 6303-21-5, Hypophosphorous
 acid 7647-01-0, Hydrochloric acid, uses 7664-38-2, Phosphoric
 acid, uses 7664-93-9, Sulfuric acid, uses
 (esterification catalyst; in prepn. of fuel lubricity
 additives)
 IT 50-70-4, Sorbitol, reactions 50-99-7, Glucose, reactions
 56-18-8, Dipropylenetriamine 56-81-5, Glycerol, reactions
 57-48-7, Fructose, reactions 69-72-7, Salicylic acid, reactions
 77-85-0, Trimethylolethane 77-99-6, Trimethylolpropane 78-90-0,
 Propylenediamine 79-10-7, Acrylic acid, reactions 85-43-8,
 Tetrahydrophthalic anhydride 87-66-1, Pyrogallol 88-98-2,
 Tetrahydrophthalic acid 88-99-3, Phthalic acid, reactions
 92-88-6, 4,4'-Dihydroxybiphenyl 107-15-3, Ethylenediamine,
 reactions 107-21-1, Ethylene glycol,
 reactions 108-31-6, Maleic anhydride, reactions 108-46-3,
 Resorcinol, reactions 110-16-7, Maleic acid, reactions 110-44-1,
 Sorbic acid 110-60-1, 1,4-Butanediamine 110-90-7,
 Trimethylenetriamine 111-40-0, Diethylenetriamine 112-24-3,
 Triethylenetetramine 112-57-2, Tetraethylenepentamine 115-77-5,
 Pentaerythritol, reactions 120-80-9, Catechol, reactions
 123-31-9, Hydroquinone, reactions 124-09-4, Hexylenediamine,

reactions 126-30-7, Dimethylolpropane 126-58-9,
 Dipentaerythritol 134-52-1, 2,4-Dihydroxybiphenyl 319-89-1
 607-87-4, Salicylic anhydride 1806-29-7, 2,2'-Dihydroxybiphenyl
 2051-76-5, Acrylic anhydride 3458-28-4, Mannose 4605-14-5,
 Tripropylenetetramine 5669-45-4, Dimethylenetriamine 7530-86-1,
 Tetramethylenepentamine 13274-42-5, Tetrapropylenepentamine
 13390-06-2, Sorbic anhydride 15518-43-1 **25322-69-4**,
Polypropylene glycol 33568-97-7,
 Tributylenetetramine 33568-98-8, Dibutylenetriamine 53106-52-8,
 Pentose
 (in prepn. of fuel lubricity additives)

L90 ANSWER 6 OF 15 HCA COPYRIGHT 2003 ACS

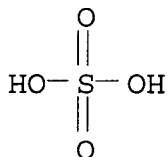
130:183027 Side chain copolymers containing liquid crystalline and
 photoactive **chromophore**. Samui, Asit Baran; Kang, Suk
 Hoon; Choi, Dong Hoon (Department of Textile Engineering, Kyung Hee
 University, Kyungki-Do, 449-701, S. Korea). Molecular Crystals and
 Liquid Crystals Science and Technology, Section A: Molecular
 Crystals and Liquid Crystals, 316, 27-30 (English) 1998. CODEN:
 MCLCE9. ISSN: 1058-725X. Publisher: Gordon & Breach Science
 Publishers.

AB Liq. cryst. (LC) monomers and photoactive monomers with various
 structures were synthesized and copolymd. to obtain copolymers based
 on methacrylate mesogenic monomers and methacrylate/itaconate
 photoactive monomers. The resulting copolymers contain a LC unit
 and varying photoactive units. The phase transition temp. of the
 copolymers depends on comonomer structure and spacer length. The
 transition temp. of an itaconate bearing copolymer increased as the
 spacer length decreased.

IT **7664-93-9**, Sulfuric acid, uses
 (esterification catalyst; prepn. of monomers and
 polymn. and phase transition vs. temp. of polymethacrylates
 contg. liq. cryst. and photoactive **chromophore** side
 chains)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



CC 36-5 (Physical Properties of Synthetic High Polymers)
 Section cross-reference(s): 35, 75

IT Substitution reaction, nucleophilic
 (Mitsunobu; prepn. of monomers and polymn. and phase transition
 vs. temp. of polymethacrylates contg. liq. cryst. and photoactive
chromophore side chains)

IT Polymer morphology
 (phase; prepn. of monomers and polymn. and phase transition vs.

- temp. of polymethacrylates contg. liq. cryst. and photoactive **chromophore** side chains)
- IT Esterification
Liquid crystals, polymeric
Phase transition temperature
(prepn. of monomers and polymn. and phase transition vs. temp. of polymethacrylates contg. liq. cryst. and photoactive **chromophore** side chains)
- IT Polymerization
(radical; prepn. of monomers and polymn. and phase transition vs. temp. of polymethacrylates contg. liq. cryst. and photoactive **chromophore** side chains)
- IT Polymer chains
(side; prepn. of monomers and polymn. and phase transition vs. temp. of polymethacrylates contg. liq. cryst. and photoactive **chromophore** side chains)
- IT Liquid crystals
(smectic; prepn. of monomers and polymn. and phase transition vs. temp. of polymethacrylates contg. liq. cryst. and photoactive **chromophore** side chains)
- IT Liquid crystals
(transitions; prepn. of monomers and polymn. and phase transition vs. temp. of polymethacrylates contg. liq. cryst. and photoactive **chromophore** side chains)
- IT 603-35-0, Triphenylphosphine, uses 2446-83-5, Diisopropyl azodicarboxylate
(Mitsunobu catalyst; prepn. of monomers and polymn. and phase transition vs. temp. of polymethacrylates contg. liq. cryst. and photoactive **chromophore** side chains)
- IT 104-15-4, uses 7664-93-9, Sulfuric acid, uses
(**esterification** catalyst; prepn. of monomers and polymn. and phase transition vs. temp. of polymethacrylates contg. liq. cryst. and photoactive **chromophore** side chains)
- IT 82200-53-1P
(liq. crystal monomer; prepn. of monomers and polymn. and phase transition vs. temp. of polymethacrylates contg. liq. cryst. and photoactive **chromophore** side chains)
- IT 189232-83-5P 189232-84-6P
(monomer; prepn. of monomers and polymn. and phase transition vs. temp. of polymethacrylates contg. liq. cryst. and photoactive **chromophore** side chains)
- IT 126390-52-1P
(photoactive monomer; prepn. of monomers and polymn. and phase transition vs. temp. of polymethacrylates contg. liq. cryst. and photoactive **chromophore** side chains)
- IT 220630-29-5P 220630-30-8P 220630-31-9P
(prepn. of monomers and polymn. and phase transition vs. temp. of polymethacrylates contg. liq. cryst. and photoactive **chromophore** side chains)
- IT 97-65-4, reactions 100-61-8, N-Methyl aniline, reactions
104-03-0, 4-Nitrophenylacetic acid 109-83-1, N-Methyl-ethanolamine

123-08-0, 4-Hydroxybenzaldehyde 456-27-9, 4-Nitrobenzenediazonium tetrafluoroborate 459-57-4, 4-Fluorobenzaldehyde 920-46-7, Methacryloyl chloride 2009-83-8, 6-Chloro-1-hexanol (prepn. of monomers and polymn. and phase transition vs. temp. of polymethacrylates contg. liq. cryst. and photoactive chromophore side chains)

L90 ANSWER 7 OF 15 HCA COPYRIGHT 2003 ACS

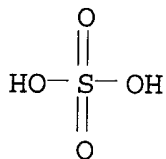
130:140772 Preparation of waxes with high ester values. Shi, Bojun; Jin, Huishu; Zhao, Qichao; Zhu, Minjun (Fushun Academy of Petro-Chemical Engineering, Chinese Petro-Chemical General Corp., Peop. Rep. China). Faming Zhuanli Shenqing Gongkai Shuomingshu CN 1123286 A 19960529, 12 pp. (Chinese). CODEN: CNXXEV. APPLICATION: CN 1994-118302 19941122.

AB Waxes are prepd. by catalytic esterification of unsatd. carboxylic acids or anhydrides with monohydric alc. at 100-140.degree., neutralizing with a base, washing with H2O to obtain unsatd. esters, and radically polymg. the unsatd. esters with a polyolefin wax (mol. wt. 1000-6000) at 150-250.degree.. Thus, maleic anhydride was esterified with ethanol to give di-Et maleate, polymd. with a polyethylene wax in the presence of Bz2O2, and used in a floor wax formulation.

IT 7664-93-9, Sulfuric acid, uses (esterification of unsatd. carboxylic acids and alcs. and graft polymn. with polyolefins for waxes)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C08F008-46

CC 45-4 (Industrial Organic Chemicals, Leather, Fats, and Waxes)

IT Coloring materials

(crayons; esterification of unsatd. carboxylic acids and alcs. and graft polymn. with polyolefins for waxes)

IT 104-15-4, uses 5329-14-6, Sulfamic acid 7446-11-9, Sulfur trioxide, uses 7664-93-9, Sulfuric acid, uses

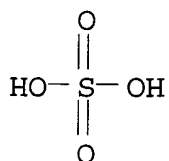
15520-11-3, Bis(4-tert-butylcyclohexyl) peroxydicarbonate 29014-32-2, Diisopropylbenzene peroxide

(esterification of unsatd. carboxylic acids and alcs. and graft polymn. with polyolefins for waxes)

L90 ANSWER 8 OF 15 HCA COPYRIGHT 2003 ACS

124:320082 Synthesis of diglycol dioleate. Tian, Shaolei; Xie, Mengxia; Hu, Jianli; Li, Xuanrong (Dep. of Medical Chemistry, National Insts. of Pharmaceutical Research & Development, Beijing, 102206, Peop. Rep. China). Jingxi Huagong, 13(1), 9-12 (Chinese) 1996. CODEN:

JIHUFJ. ISSN: 1003-5214. Publisher: Jingxi Huagong Bianjibu.
 AB The reaction conditions for synthesizing diglycol dioleate, by
 esterification of diglycol monooleate with oleic acid via acid
 catalysis, were reported. The selection of catalysts and the
 optimum conditions were studied.
 IT 7664-93-9, Sulfuric acid, uses
 (esterification of **ethylene glycol**
 monooleate with oleic acid via acid catalysis)
 RN 7664-93-9 HCA
 CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



CC 45-4 (Industrial Organic Chemicals, Leather, Fats, and Waxes)
 ST **ethylene glycol** dioleate synthesis catalyst;
 esterification diglycol oleate oleic acid catalyst
 IT Esterification
 Esterification catalysts
 (esterification of **ethylene glycol** monooleate
 with oleic acid via acid catalysis)
 IT 98-11-3, Benzene sulfonic acid, uses 7647-01-0, Hydrochloric acid,
 uses 7664-38-2, Phosphoric acid, uses 7664-93-9,
 Sulfuric acid, uses
 (esterification of **ethylene glycol**
 monooleate with oleic acid via acid catalysis)
 IT 928-24-5P, **Ethylene glycol** dioleate
 (esterification of **ethylene glycol** monooleate
 with oleic acid via acid catalysis)
 IT 4500-01-0, **Ethylene glycol** monooleate
 (esterification of **ethylene glycol** monooleate
 with oleic acid via acid catalysis)

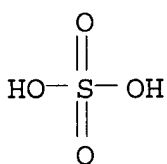
L90 ANSWER 9 OF 15 HCA COPYRIGHT 2003 ACS

123:341275 Purification of naphthalenedicarboxylic acid dialkyl esters.
 Aoyanagi, Mitsuhito; Kono, Keiji; Sumitani, Koji (Teijin Ltd,
 Japan). Jpn. Kokai Tokkyo Koho JP 07224006 A2 19950822 Heisei, 6
 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-17260
 19940214.

AB The title esters contg. .ltoreq.10 ppm sulfonic acids are purified
 by (1) esterification of 1 part naphthalenedicarboxylic acid (I)
 with .gtoreq.2 parts alkanols in the presence of H2SO4 or org.
 sulfonic acids, (2) sepn. of a slurry of the esters and the alkanols
 into solid and liq. by filtration or pptn., (3) recrystn. of 1 part
 esters with .gtoreq.2 parts alkanols, (4) sepn. of the recrystd.
 cake from the alkanols by filtration or pptn., and (5) distn. of the
 recrystd. cake, solid-liq. sepn in the steps (2) and (4) is carried
 out to satisfy (A/100) .times. (B/100) .ltoreq. 0.08 [A = liq.

content (wt.%) of cake obtained in step (2); B = liq. content (wt.%) of cake obtained in step (4)]. A mixt. of 2,6-I, MeOH, and H₂SO₄ was autoclaved at 160.degree. for 1 h and the unit reaction was repeated 3 times. The collected reaction slurry was filtered at 400 mmHg to give a cake contg. 28% liq., which was dried, dissolved in 1500 parts (per 250 parts cake) MeOH by heating at 120.degree. and the soln. was cooled to 30.degree.. The slurry was filtered at 400 mmHg and the obtained cake contg. 21% liq. [(A/100) .times. (B/100) = 0.059], which was dried and distd. at the head temp. 210.degree. and 10 mmHg to give a product fraction contg. <1 ppm SO₄- with Hazen **color** no. 10, vs. 16 ppm and 30., resp., for a control by distn. of cake contg. 29% liq. [(A/100) .times. (B/100) = 0.081].

IT 7664-93-9, Sulfuric acid, uses
 (esterification catalyst; purifn. of dialkyl
 naphthalenedicarboxylates)
 RN 7664-93-9 HCA
 CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C07C069-76
 ICS B01J031-02; C07C067-08; C07C067-52; C07C067-54; C07C067-56
 ICA C07B061-00

CC 35-2 (Chemistry of Synthetic High Polymers)

IT 7664-93-9, Sulfuric acid, uses
 (esterification catalyst; purifn. of dialkyl
 naphthalenedicarboxylates)

L90 ANSWER 10 OF 15 HCA COPYRIGHT 2003 ACS

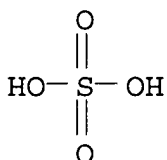
121:10190 Preparation of (meth)acrylic acid esters. Tani, Juichiro; Okuda, Ryuji; Takahashi, Katsuji; Ri, Shotaku (Dainippon Ink & Chemicals, Japan). Jpn. Kokai Tokkyo Koho JP 06009496 A2 19940118 Heisei, 19 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-55627 19930316. PRIORITY: JP 1992-111415 19920430.

AB The title compds. are easily prepd. by reacting (meth)acrylic acid with alcs. in the presence of water-sol. esterification catalysts and water-sol. polymn. inhibitors, then washing the products with water to remove the catalysts and inhibitors. The uses of these catalysts and polymn. inhibitors simplifies the workup process. Thus, heating trimethylolpropane 201, acrylic acid 422, Na hydroquinonesulfonate 3.1, and p-toluenesulfonic acid 12.5 g in 13 g PhMe and 112 g cyclohexane at 100.degree. for 6 h and working up gave a corresponding ester at 95.8% yield.

IT 7664-93-9, Sulfuric acid, uses
 (esterification catalysts, water-sol., for
 (meth)acrylic acid)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IT 107-21-1, 1,2-Ethanediol, reactions
(reaction of, with (meth)acrylic acid, water-sol. catalysts and
polymn. inhibitors in)
RN 107-21-1 HCA
CN 1,2-Ethanediol (9CI) (CA INDEX NAME)



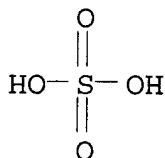
IC ICM C07C069-54
ICS B01J031-02; C07C067-02; C07C067-08; C07C067-62
ICA C07B061-00
CC 35-2 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 67
ST trimethylolpropane acrylate prepn; polymn inhibitor acrylic acid
ester prepn; methacrylic acid ester polymn inhibitor; esterification
catalyst acrylic acid; **ethylene glycol**
methacrylate prepn
IT 98-11-3, Benzenesulfonic acid, uses 104-15-4, uses 618-01-9
7664-93-9, Sulfuric acid, uses
(esterification catalysts, water-sol., for
(meth)acrylic acid)
IT 97-90-5P 2274-11-5P, **Ethylene glycol**
diacrylate 3290-92-4P, Trimethylolpropane trimethacrylate
15625-89-5P, Trimethylolpropane triacrylate
(prepn. of, water-sol. esterification catalysts and polymn.
inhibitors in)
IT 77-99-6 107-21-1, 1,2-Ethanediol, reactions
(reaction of, with (meth)acrylic acid, water-sol. catalysts and
polymn. inhibitors in)
L90 ANSWER 11 OF 15 HCA COPYRIGHT 2003 ACS
119:181545 Polyester-type dendritic macromolecules, and their
manufacture and use. Hult, A.; Malmstroem, E.; Johansson, M.;
Soerensen, K. (Perstorp AB, Swed.). Swed. SE 468771 B 19930315, 20
pp. (Swedish). CODEN: SSXXAY. APPLICATION: SE 1992-564 19920226.
AB The macromols., consisting of a central initiator mol. or polymer
contg. .gtoreq.1 reactive groups (A), which groups A are bonded with
reactive groups (B) of a chain-lengthening monomer to form a 1st,
both A an B group-contg. treelike structure that may be further
lengthened and branched out from the initiator mol. or polymer by
addnl. monomeric chain-lengtheners via bonding to the A and B
groups, and, optionally, also further lengthened by reaction with a

chain stopper, A and B are hydroxyl A and carboxyl groups, resp., and the chain-lengthening monomer contains a group B and .gtoreq.2 groups A or hydroxyalkyl-substituted A. The macromols. are manufd. by reacting an initiator mol. or polymer contg. .gtoreq.1 hydroxyl groups at 0-280, preferably 100-250.degree., with a chain-lengthening monomer contg. a group B and .gtoreq.2 groups A or hydroxyalkyl-substituted A, after which the reaction products may be reacted with a chain stopper. The macromols. are used as components in alkyd resins, satd. and unsatd. polyesters, epoxy resins, polyurethanes, UV-curable binders, dental materials, lubricants, microlithog. **pigments**, powd. binders, and amino resins. To 1.0 mol di-trimethylolpropane were added, under flowing Ar and at 120.degree., 8.0 mol dimethylolpropionic acid and 0.12 mol p-toluenesulfonic acid, and the reaction was carried out at 140.degree. for 2 h, after which 8.0 mol lauric acid were added and the reaction continued for 2 h to give a polyester having viscosity 10 Pa.s at 23.degree.. Addn. of 4.0 and 12.0 mol lauric acid gave viscosity 1037 and 1.5 Pa.s, resp.

IT 7664-93-9, Sulfuric acid, uses
(**esterification** catalyst, polymn. in presence of, in dendritic polyester manuf. for dental materials and **paints**)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IT 75-21-8DP, Oxirane, reaction products with alcs., dendritic polyesters with carboxylic acids 75-56-9DP, reaction products with alcs., dendritic polyesters with carboxylic acids (manuf. of, for dental materials and **paints**)

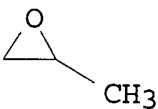
RN 75-21-8 HCA

CN Oxirane (9CI) (CA INDEX NAME)



RN 75-56-9 HCA

CN Oxirane, methyl- (9CI) (CA INDEX NAME)



IC ICM C08G063-02
ICS C08G063-20

CC 35-5 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 63

ST dendritic polyester; ditrimethylolpropane dimethylolpropionic acid
dendritic polyester; lauric acid chain stopper polyester; alkyd
resin dendritic polyester; epoxy resin dendritic; urethane polymer
dendritic polyester; UV curable polymer dendritic polyester; dental
material dendritic polyester; lubricant dendritic polyester;
microlithog **pigment** dendritic polyester; powd binder
dendritic polyester; amino resin dendritic polyester

IT Binding materials
Lubricants
(UV-curable, dendritic polyester manuf. for, for dental materials
and **paints**)

IT Epoxy resins, uses
Urethane polymers, uses
(dendritic polyester manuf. for, for dental materials and
paints)

IT Alkyd resins
(dendritic polyester manuf. for, for dental materials and
paints)

IT Lewis acids
(esterification catalyst, polymn. in presence of, in dendritic
polyester manuf. for dental materials and **paints**)

IT Titanates
(esterification catalysts, polymn. in presence of, in dendritic
polyester manuf. for dental materials and **paints**)

IT Onium compounds
(polymn. catalysts contg., in dendritic polyester manuf. for
dental materials and **paints**)

IT Esterification catalysts
(polymn. in presence of, in dendritic polyester manuf. for dental
materials and **paints**)

IT 42978-66-5, Tripropyleneglycol diacrylate
(acrylic oligomers UV hardening with, in dendritic polyester
manuf. for dental materials and **paints**)

IT 473-81-4 2831-90-5 4767-03-7 10097-02-6 10097-03-7
(chain-lengthening agent, in dendritic polyester manuf., for
dental materials and **paints**)

IT 98-73-7, p-t-Butylbenzoic acid 53632-09-0
(chain-stopping agent, in dendritic polyester manuf., for dental
materials and **paints**)

IT 65-85-0, Benzoic acid, miscellaneous 79-10-7, 2-Propenoic acid,
miscellaneous 79-41-4, miscellaneous 124-07-2, Octanoic acid,
miscellaneous 143-07-7, Dodecanoic acid, miscellaneous 334-48-5,
Capric acid
(chain-stopping agent, in dendritic polyester manuf., for dental
materials and **paints**)

IT 95078-13-0, Cyracure UVR 6100
(cycloaliph. diepoxy resin, in dendritic polyester manuf. for
dental materials and **paints**)

- IT 75-75-2, Methanesulfonic acid 76-05-1, Trifluoroacetic acid, uses 104-15-4, p-Toluenesulfonic acid, uses 1493-13-6 5593-70-4, Tetrabutyl titanate 7446-70-0, Aluminum chloride (AlCl₃), uses 7637-07-2, Boron trifluoride, uses 7646-78-8, Tin tetrachloride, uses 7664-38-2, Phosphoric acid, uses **7664-93-9**, Sulfuric acid, uses 25155-19-5, Naphthalenesulfonic acid (esterification catalyst, polymn. in presence of, in dendritic polyester manuf. for dental materials and **paints**)
- IT 30280-63-8P 32628-22-1DP, soya fatty acid-terminated 150504-00-0DP, lauric acid- and soya fatty acid-terminated (manuf. of dendritic, for dental materials and **paints**)
- IT 50-70-4DP, D-Glucitol, dendritic polyesters with carboxylic acids 56-81-5DP, 1,2,3-Propanetriol, dendritic polyesters with carboxylic acids 69-65-8DP, Mannitol, dendritic polyesters with carboxylic acids **75-21-8DP**, Oxirane, reaction products with alcs., dendritic polyesters with carboxylic acids **75-56-9DP**, reaction products with alcs., dendritic polyesters with carboxylic acids 77-85-0DP, Trimethylolethane, dendritic polyesters with carboxylic acids 97-30-3DP, dendritic polyesters with carboxylic acids 115-77-5DP, dendritic polyesters with carboxylic acids 126-30-7DP, dendritic polyesters with carboxylic acids 126-58-9DP, Dipentaerythritol, dendritic polyesters with carboxylic acids 4744-47-2DP, dendritic polyesters with carboxylic acids 23235-61-2DP, Di-trimethylolpropane, dendritic polyesters with carboxylic acids 26249-20-7DP, Butyleneoxide, reaction products with alcs., dendritic polyesters with carboxylic acids 34541-79-2DP, Di-trimethylolethane, dendritic polyesters with carboxylic acids 52624-57-4DP, dendritic polyesters with carboxylic acids (manuf. of, for dental materials and **paints**)
- IT 94-36-0, Benzoyl peroxide, uses 121-69-7, uses 123-31-9, Hydroquinone, uses 136-52-7, Cobalt octoate 614-45-9, tert-Butyl perbenzoate 947-19-3, Irgacure 184 (polymn. catalysts contg., in dendritic polyester manuf. for dental materials and **paints**)
- IT 7440-31-5, Tin, uses 7440-66-6, Zinc, uses (powd., esterification catalyst, polymn. in presence of, in dendritic polyester manuf. for dental materials and **paints**)

L90 ANSWER 12 OF 15 HCA COPYRIGHT 2003 ACS

113:193456 Isomer removal from 1-amino-2-chloro-4-hydroxyanthraquinone. Kohlhaupt, Reinhold (BASF A.-G., Germany). Ger. DE 3843790 C1 19900510, 4 pp. (German). CODEN: GWXXAW. APPLICATION: DE 1988-3843790 19881224.

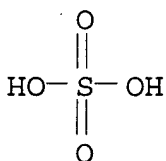
AB 1-Amino-2-chloro-4-hydroxyanthraquinone (I), useful as an intermediate in the manuf. of anthraquinone **dyes**, is sepd. from 2-amino-3-chloro-1-hydroxyanthraquinone (II), by stirring I-II mixts. with 80-90% H₂SO₄, heating to 75-120.degree., cooling to 10-30.degree., sepg. the I sulfate ester by filtration, washing it with 40-60% H₂SO₄, and then washing with H₂O to cleave the sulfate

ester and form neutral I. Thus, 60 parts crude I (contg. 62.5% I and 10.1% II) was stirred with 205 parts of 87% H₂SO₄, the suspension heated to 95.degree., stirred 2 h at 95.degree., cooled over 4 h with stirring to 25.degree., the I sulfate ester filtered, washed with 60% H₂SO₄, and washed with H₂O until neutral, and the powder dried at 100.degree. under a vacuum, producing 36.4 parts I contg. 1.5% II.

IT 7664-93-9, Sulfuric acid, reactions
(**esterification** by, of aminochlorohydroxyanthraquinone, in isomer sepn.)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C07C225-36

ICA C09B001-50

CC 41-9 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 25

ST aminochlorohydroxyanthraquinone purifn sulfate ester formation;
sulfuric acid esterification aminochlorohydroxyanthraquinone purifn;
isomer removal aminochlorohydroxyanthraquinone **dye**
intermediate

IT **Dyes**, anthraquinone
(intermediates, aminochlorohydroxyanthraquinone as, sepn. of isomers of)

IT 7664-93-9, Sulfuric acid, reactions
(**esterification** by, of aminochlorohydroxyanthraquinone, in isomer sepn.)

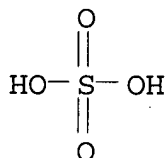
L90 ANSWER 13 OF 15 HCA COPYRIGHT 2003 ACS

113:61306 Synthesis of C.I. Reactive Blue 19. Xin, Pan (Dalian Polytechnical College, Peop. Rep. China). Faming Zhuanli Shenqing Gongkai Shuomingshu CN 1034012 A 19890719, 14 pp. (Chinese).
CODEN: CNXXEV. APPLICATION: CN 1987-108296 19871230.

AB The title **dye** is prepd. by reacting (m-O₂NC₆H₄S)₂ with Na₂S to give m-H₂NC₆H₄SNa, treating with ClCH₂CH₂OH to give m-H₂NC₆H₄SCH₂CH₂OH, reacting with 1-amino-2-sulfo-4-bromoanthraquinone Na salt in the presence of NaHCO₃/Na₂CO₃ and CuSO₄-FeSO₄ to give 1-amino-2-sulfo-4-(3'-beta.-hydroxyethylthiophenylamino)anthraquinone Na salt, oxidizing with H₂O₂ in the presence of Na tungstate to form the corresponding sulfone, and esterifying with fuming H₂SO₄.

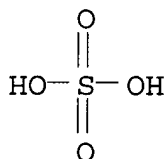
IT 7664-93-9, Sulfuric acid, reactions
(**esterification** of, with aminohydroxyethylsulfonylphenyl aminoanthraquinone sulfonate)

RN 7664-93-9 HCA
 CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)

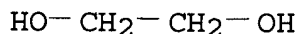


IC ICM C09B062-525
 CC 41-4 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
 ST reactive blue anthraquinone dye
 IT Dyes, reactive
 (anthraquinone, manuf. of blue)
 IT 7664-93-9, Sulfuric acid, reactions
 (esterification of, with aminohydroxyethylsulfonylphenyl aminoanthraquinone sulfonate)

L90 ANSWER 14 OF 15 HCA COPYRIGHT 2003 ACS
 91:38937 Acetic acid alkyl esters. Schoenbeck, Rupert; Wechsberg, Manfred (Lentia G.m.b.H. Chem. und Pharm. Erzeugnisse-Industriebedarf, Fed. Rep. Ger.). Ger. Offen. DE 2747645 19790426, 12 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1977-2747645 19771024.
 AB Acetates AcOR (R = C1-C18 alkyl, alkenyl, cycloalkyl, or aralkyl) and (AcO)2Z (Z = C2-C18 alkylene or cycloalkylene) were prep'd. by treating AcNH2 at 100-200.degree. with the appropriate alc. or glycol in the presence of 1 acid equiv H2SO4 and/or NH4HSO4 per mol AcNH2. This procedure was used to prep. the acetates of C1-C4 alcs., BuCH2CH2OH, cyclohexanol, CH2:CHCH2OH, and HO(CH2)nOH (n = 2, 3, 6) in 88-96% yield.
 IT 7664-93-9, uses and miscellaneous
 (esterification reaction of acetamide with alcs. in presence of)
 RN 7664-93-9 HCA
 CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



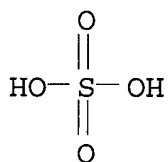
IT 107-21-1, reactions
 (esterification reaction of, with acetamide)
 RN 107-21-1 HCA
 CN 1,2-Ethanediol (9CI) (CA INDEX NAME)



- IC C07C069-14; C07C069-16; C07C067-20
 CC 23-17 (Aliphatic Compounds)
 IT 7664-93-9, uses and miscellaneous 7803-63-6
 (esterification reaction of acetamide with alcs. in presence of)
 IT 107-21-1, reactions 504-63-2 629-11-8
 (esterification reaction of, with acetamide)
- L90 ANSWER 15 OF 15 HCA COPYRIGHT 2003 ACS
 66:86885 Detergents with low foaming tendency. (Boehme Fettchemie G.m.b.H.). Neth. Appl. NL 6607330 19661227, 17 pp. (Dutch). CODEN: NAXXAN. PRIORITY: DD 19650625.
- AB Detergents useful for glass, porcelain, ceramic, metal, and plastic consist of: 20-50% by wt. poly(oxyalkylene) (I) residue-contg. compd. (II) (>50 mole % oxyethylene units and small concn. of oxypropylene (III) and (or) oxybutylene (IV) units); 2.5-20% by wt. AlXA2 (V), in which A1 and A2 are II residues without the terminal OH groups and X is an ether O atom or a bridge in a form of divalent inorg. or org. residue contg. esp. acetal or ketal groups; and 30-75% by wt. I-contg. compd. (VI) (>50 mole % III and (or) IV units). V is prepd. by etherification of 2 moles I, reaction of 2 moles I halohydrin ether with 1 mole ammonia, primary alc., or alkali sulfide, 2 moles I with 1 mole SO₂Cl₂, esterification of 1 mole poly(alkylene glycol) (mol. wt. 1000-5000) with 2 moles high-mol-wt. carboxylic acid, primary or secondary amine, alc., mercaptan, or alkyl phenol. For example, an aq. soln. contg. II (reaction product of 1 mole nonylphenol with 20 moles epoxyethane (VII)(VIII) 0.12; V (reaction product of 1 mole C12-18 fatty alc. (IX), 20 moles VII, and 1 mole divinylsulfone) (X) 0.01; and VI (reaction product of IX 1, VII 5, and epoxypropane 13 moles) (XI) 0.12 g./l. .dblharw. H₂O gave a foam height (measured after 5 min. circulation of 170 l. H₂O/min. (16.degree. hardness at 50.degree.C.)) of 35 mm., as compared with >280 mm. in aq. solns. contg. VIII 0.12 and X 0.01 or VIII 0.12 and XI 0.12 g./l. H₂O.
- IC D06L
 CC 46 (Surface Active Agents and Detergents)
 IT Glycols, polyalkylene
 (ethers, low-foaming detergents contg.)
 IT Detergents, uses and miscellaneous
 (low-foaming, contg. polyalkylene glycols and derivs.)
 IT Glycols, polyethylene, ethers with fatty alcs.
 Glycols, polyethylene, nonylphenyl ethers
 (detergents (low-foaming) contg.)

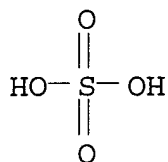
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L91 ANSWER 1 OF 26 HCA COPYRIGHT 2003 ACS
 134:72874 Softening composition for finishing of materials which are made of **wool** or **wool** blends. Stavarache, Romeo (S.C. Prod Cresus S.A., Rom.). Rom. RO 110073 B1 19950929, 4 pp. (Romanian). CODEN: RUXXA3. APPLICATION: RO 1995-9500165 19950203.
 AB Softening compns. that exhibit good homogeneity and provide fabrics with high resistance to abrasion contain ionic surfactants 15-30, nonionic surfactants 10-30, hydrophilic compds. (such as lower alcs., glycols, polyglycols, esters, and glycol monoesters) 10-30, and additives 1-30%, with the remainder being water.
 IT **7664-93-9D, Sulfuric acid, fatty esters, uses**
 (softening compn. for finishing of materials of **wool** or **wool** blends)
 RN 7664-93-9 HCA
 CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)

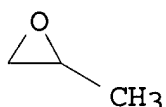


IC ICM D06M015-27
 ICS D06M015-327
 CC 40-9 (Textiles and Fibers)
 ST ionic surfactant softening finish **wool** fabric; ester softening finish **wool** fabric; polyglycol softening finish **wool** fabric; glycol softening finish **wool** fabric; alc softening finish **wool** fabric; hydrophilic compd softening finish **wool** fabric; nonionic surfactant softening finish **wool** fabric
 IT Glycols, uses
 (esters; softening compn. for finishing of materials of **wool** or **wool** blends)
 IT Surfactants
 (ionic; softening compn. for finishing of materials of **wool** or **wool** blends)
 IT Alcohols, uses
 (lower; softening compn. for finishing of materials of **wool** or **wool** blends)
 IT Surfactants
 (nonionic; softening compn. for finishing of materials of **wool** or **wool** blends)
 IT Fabric softeners
 (softening compn. for finishing of materials of **wool** or **wool** blends)
 IT Esters, uses
 Glycols, uses
 (softening compn. for finishing of materials of **wool** or

- IT **wool blends)**
 IT Textiles
 (**wool**; softening compn. for finishing of materials of
 wool or wool blends)
 IT 57-11-4, Stearic acid, uses 64-17-5, Ethanol, uses 78-83-1,
 Isobutanol, uses 822-16-2, Sodium stearate **7664-93-9D**,
 Sulfuric acid, fatty **esters**, uses
 9016-45-9, **Ethoxylated** nonylphenol
 (softening compn. for finishing of materials of **wool** or
 wool blends)
 L91 ANSWER 2 OF 26 HCA COPYRIGHT 2003 ACS
 133:5817 Shrinkproofing agents and shrinkproof methods for animal hair
 fiber products. Ishikawa, Mitsuo (Japan). Jpn. Kokai Tokkyo Koho
 JP 2000144577 A2 20000526, 17 pp. (Japanese). CODEN: JKXXAF.
 APPLICATION: JP 1998-330271 19981106.
 AB Shrinkproofing agents contain 100% mixts. of polyalkylene oxide
 polyols (2-6 functionalities) 5-80, previous polyols treated with
 aliph. and/or arom. isocyanates 0.1-20%, water-sol. and/or
 -dispersible polyurethanes 5-94.7, divalent-tetravalent metal salts
 0.1-7, surfactants (except >C6 alkyl N-contg. surfactants) 0.1-20%,
 20-200% >C6 alkyl N-contg. surfactants, 5-100% aliph. and/or arom.
 aldehydes, and 50-300% hydroxyalkylphosphines. Thus, a
 shrinkproofing agent contained 100% mixt. of polyethylene propylene
 triol (I) 65.0, a I-hexamethylene diisocyanate reaction product 8.5,
 a Neotan polyurethane 20.0, Al sulfate 1.5, and **polyethylene**
 glycol nonylphenyl ether 5.0%, 20-150% coco fatty acid
 diethanolamide, 5-100% Relugan, 150-550% mixt. of reducing agents,
 150-250% Emal 40, and 150-250% Sandet ADX.
 IT **7664-93-9D, Sulfuric acid**, alkyl
 esters, sodium salt, uses **9003-11-6D**, triol
 (shrinkproofing agents contg. polyurethane and surfactants and
 reducing agents for animal hair fiber products)
 RN 7664-93-9 HCA
 CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



- RN 9003-11-6 HCA
 CN Oxirane, methyl-, polymer with oxirane (9CI) (CA INDEX NAME)
 CM 1
 CRN 75-56-9
 CMF C3 H6 O



CM 2

CRN 75-21-8

CMF C2 H4 O



IC ICM D06M015-568

ICS D06M101-10

CC 40-9 (Textiles and Fibers)

IT Textiles

(wool; shrinkproofing agents contg. polyurethane and surfactants and reducing agents for animal hair fiber products)

IT 822-06-0D, Hmdi, reaction products with polyoxyethylene oxypropylene triol 9001-92-7, Protease 9016-45-9, **Polyethylene glycol** nonylphenyl ether 10043-01-3, Aluminum sulfate 151638-34-5, Enzyme WS

(shrinkproofing agents contg. polyurethane and surfactants and reducing agents for animal hair fiber products)

IT 111-42-2D, Diethanolamine, coco fatty acid amides **7664-93-9D**, **Sulfuric acid**, alkyl **esters**, sodium salt, uses **9003-11-6D**, triol 60650-57-9, Emal 40 270923-13-2, Sandet ADX

(shrinkproofing agents contg. polyurethane and surfactants and reducing agents for animal hair fiber products)

L91 ANSWER 3 OF 26 HCA COPYRIGHT 2003 ACS

132:65801 Liquid detergent composition containing amine oxide and citric acid. Arvanitidou, Evangelia; Jakubicki, Gary (Colgate-Palmolive Co., USA). U.S. US 6010992 A 20000104, 5 pp. (English). CODEN: USXXAM. APPLICATION: US 1999-323576 19990601.

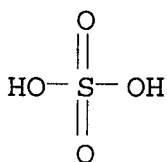
AB A liq. detergent compn. with good pH and **color** stability comprises an amine oxide, citric acid, and water. Thus, a detergent contained a Na linear alkylbenzenesulfonate 3.00, a Mg linear alkylbenzenesulfonate 9.02, an alkyl ether sulfate 11.64, an alkyl polyglucoside 10, an amine oxide 6.34, Na bisulfite 0.05, a yellow **color** soln. 0.2, a perfume 0.3, citric acid 0.1%, and water.

IT **7664-93-9D**, **Sulfuric acid**, **ethoxylated alc. esters**, uses

(surfactants; liq. detergent compn. contg. amine oxide and citric acid having pH and **color** stability)

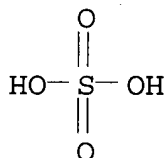
RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C11D001-75
ICS C11D001-12; C11D003-22; C11D001-22
NCL 510237000
CC 46-6 (Surface Active Agents and Detergents)
ST detergent pH **color** stability; amine oxide citric acid
detergent
IT Glycosides
(alkyl, surfactants; liq. detergent compn. contg. amine oxide and
citric acid having pH and **color** stability)
IT Chelating agents
(citric acid; liq. detergent compn. contg. amine oxide and citric
acid having pH and **color** stability)
IT Alcohols, uses
(ethoxylated, sulfates, surfactants; liq. detergent compn. contg.
amine oxide and citric acid having pH and **color**
stability)
IT Discoloration prevention
Solubilizers
Surfactants
pH
(liq. detergent compn. contg. amine oxide and citric acid having
pH and **color** stability)
IT Detergents
(liq.; liq. detergent compn. contg. amine oxide and citric acid
having pH and **color** stability)
IT Amine oxides
(surfactants; liq. detergent compn. contg. amine oxide and citric
acid having pH and **color** stability)
IT 98-11-3D, Benzenesulfonic acid, alkyl derivs., uses
(ABS (surfactant); liq. detergent compn. contg. amine oxide and
citric acid having pH and **color** stability)
IT 140-01-2, Versenex 80
(Versenex 80; liq. detergent compn. contg. amine oxide and citric
acid having pH and **color** stability)
IT 77-92-9, Citric acid, uses
(liq. detergent compn. contg. amine oxide and citric acid having
pH and **color** stability)
IT 7664-93-9D, Sulfuric acid,
ethoxylated alc. esters, uses
(surfactants; liq. detergent compn. contg. amine oxide and citric
acid having pH and **color** stability)

- 130:316437 Personal cleansing compositions comprising mid-chain branched surfactants. Vinson, Phillip Kyle; Coffindaffer, Timothy Woodrow; Cripe, Thomas Anthony; Stidham, Robert Emerson; Connor, Daniel Stedman (The Procter & Gamble Company, USA). PCT Int. Appl. WO 9918929 A1 19990422, 113 pp. DESIGNATED STATES: W: BR, CN, JP, MX, US; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1998-US21676 19981014. PRIORITY: US 1997-61975 19971014.
- AB Personal cleansing products which include mid-chain branched surfactants are prepd (Markush structures given). Sodium 7-methyltridecyl/n-tetradecyl ethoxylate sulfate (I) was prepd. by the reaction of 7-methyltridecyl ethoxylate, n-tetradecanol ethoxylate and chlorosulfonic acid in the presence of sodium methoxide. A cleansing compn. contained NH₄ C12-14 alkyl ethoxy sulfate 7.90, I 7.90, cocamide MEA 1.50, dimethicone DC-200 3.00, ethylene glycol distearate 1.50, citric acid 0.60, **color**, preservative, fragrance, and water q.s. 100%.
- IT **7664-93-9DP, Sulfuric acid, esters with ethoxylated C12-15 alcs., sodium salts, biological studies**
(personal cleansing compns. comprising mid-chain branched surfactants)
- RN 7664-93-9 HCA
- CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



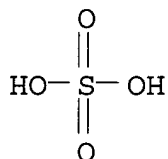
- IC ICM A61K007-50
- CC 62-4 (Essential Oils and Cosmetics)
Section cross-reference(s): 23, 46
- IT **7664-93-9DP, Sulfuric acid, esters with ethoxylated C12-15 alcs., sodium salts, biological studies** 27731-62-0P 34870-92-3DP, Polyethylene glycol sulfate, ethers with C12-15 alcs., sodium salts
223409-08-3P 223558-42-7P
(personal cleansing compns. comprising mid-chain branched surfactants)
- L91 ANSWER 5 OF 26 HCA COPYRIGHT 2003 ACS
- 130:316421 Clear hair shampoo with special ingredients. Vodakova, Olga; Zikmund, Zdenek (Czech Rep.). Czech Rep. CZ 281844 B6 19970212, 4 pp. (Czech). CODEN: CZXXED. APPLICATION: CZ 1985-9702 19851221.
- AB A clear shampoo for the hair is disclosed which comprises (by wt.) 7-15 parts sodium salts of C12-15 alkylpolyglycol sulfate esters, 1.5-6 parts di-Me C8-18 alkyl or alkenyl betaines, 3-10 parts nonylphenol polyglycol ethers, 1-6 parts C12-15 alkyl polyglycol ethers, 2-5 parts diethanolamides of coco fatty acids, 0.05-1 part

water-insol. special additives such as medicinal plant exts., jojoba oil, or specially adapted mink oil, 0.01-0.2 parts citric acid, 0.1-0.4 parts preservative, 0.2-1.0 part perfume, with 60-80 parts water with added cosmetic **coloring** agent.

IT **7664-93-9D, Sulfuric acid, esters** with **ethoxylated** C12-15 alcs., sodium salts, biological studies
(clear hair shampoo with special ingredients)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC C11D003-60; A61K070-75; C11D003-60; C11D003-20; C11D003-32; C11D003-34

CC 62-3 (Essential Oils and Cosmetics)

IT 77-92-9, Citric acid, biological studies **7664-93-9D, Sulfuric acid, esters** with **ethoxylated** C12-15 alcs., sodium salts, biological studies
9016-45-9 37340-69-5D, Polyethylene glycol sulfate, C12-15 alkyl esters, sodium salts
(clear hair shampoo with special ingredients)

L91 ANSWER 6 OF 26 HCA COPYRIGHT 2003 ACS

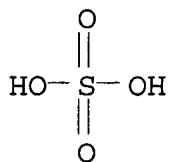
130:26495 Wet cleaning of delicate, non-structured garments with minimized wrinkling, shrinkage and color damage. Nair, Hari Krishnan Achuthan; Campbell, Melissa Leann (The Procter & Gamble Co., USA). PCT Int. Appl. WO 9853131 A1 19981126, 23 pp. DESIGNATED STATES: W: BR, CA, JP, MX, US; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1998-IB752 19980518. PRIORITY: US 1997-47616 19970523.

AB Disclosed is a method for laundering non-structured garments made of delicate fabrics. Such a method employs an aq. soaking soln. Garments are soaked for from 5 to 30 min in this unagitated, unheated soaking soln. which contains nonionic surfactant such as alc. **ethoxylate** and an anionic or cationic co-surfactant. The soaked garments are then rinsed, dewatered and dried to provide laundered garments that have not substantially shrunk, wrinkled, or discolored.

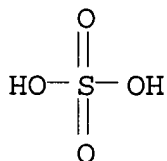
IT **7664-93-9D, Sulfuric acid, alkyl esters, uses**
(wet cleaning of delicate, non-structured garments with minimized wrinkling, shrinkage and color damage)

RN 7664-93-9 HCA

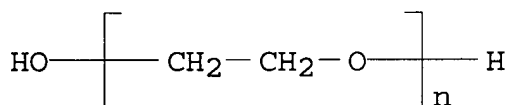
CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



- IC ICM D06L001-12
ICS C11D001-83; C11D001-86
- CC 46-5 (Surface Active Agents and Detergents)
Section cross-reference(s): 40
- IT Alcohols, uses
(**ethoxylated**; wet cleaning of delicate, non-structured garments with minimized wrinkling, shrinkage and color damage)
- IT Laundering
Ramie fibers
Silk
Wool
(wet cleaning of delicate, non-structured garments with minimized wrinkling, shrinkage and color damage)
- IT 98-11-3D, Benzenesulfonic acid, alkyl esters, uses 112-00-5,
Lauryltrimethylammonium chloride **7664-93-9D**,
Sulfuric acid, alkyl **esters**, uses
9001-92-7, Protease 26715-00-4, Poly(4-vinylpyridine N-oxide)
(wet cleaning of delicate, non-structured garments with minimized wrinkling, shrinkage and color damage)
- L91 ANSWER 7 OF 26 HCA COPYRIGHT 2003 ACS
129:303657 Antistatic spinning oiling agent compositions. Yokoyama, Tadashi; Morikawa, Ichiro; Chiba, Tadashi (Yushiro Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 10251971 A2 19980922 Heisei, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-70429 19970306.
- AB Antistatic agents are selected from .gtoreq.1 of monoalkyl (C6-25) polyoxyalkylene (d.p. 3-60) quaternary ammonium salts, C6-20 alkyl phosphate esters, C8-20 alkylsulfonic acid salts, C8-20 alc. sulfate esters, polyoxyalkylene (d.p. 2-60) C8-9 alkylphenyl ether sulfate ester salts, and dimethylalkyl(C12-22)betaines. Thus, an oiling agent contained a liq. paraffin 40, polyoxyethylene (d.p. 7) C12-14 alc. ether 8, polyoxyethylene (d.p. 9) C12-14 alc. ether 6, oleyl alc. 6, and a monococoalkylmonomethylpolyoxyalkylene quaternary ammonium salt 40 parts.
- IT **7664-93-9D**, **Sulfuric acid**, alc.
esters, salts, uses **25322-68-3D**, alkyl ethers
(spinning oiling agents contg. antistatic agents and paraffin oils and ethers and esters and alcs.)
- RN 7664-93-9 HCA
CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



RN 25322-68-3 HCA
 CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



IC ICM D06M013-46
 ICS D06M013-256; D06M013-262; D06M013-292; D06M013-342; D06M015-53
 CC 40-9 (Textiles and Fibers)
 IT **Wool**
 (polyester-wool; spinning oiling agents contg. antistatic agents and paraffin oils and ethers and esters and alcs.)
 IT Polyester fibers, uses
 (polyester-wool; spinning oiling agents contg. antistatic agents and paraffin oils and ethers and esters and alcs.)
 IT 112-92-5, 1-Octadecanol 143-28-2, Oleyl alcohol 683-10-3, Dimethyl laurylbetaine 1338-43-8, Sorbitan monooleate 2386-53-0, Sodium dodecylsulfonate 7664-38-2D, Phosphoric acid, alkyl esters, salts, uses **7664-93-9D, Sulfuric acid**, alc. **esters**, salts, uses 9004-98-2, **Polyethylene glycol** oleyl ether **25322-68-3D**, alkyl ethers
 (spinning oiling agents contg. antistatic agents and paraffin oils and ethers and esters and alcs.)

L91 ANSWER 8 OF 26 HCA COPYRIGHT 2003 ACS

129:137637 Manufacture of light-colored anionic surfactants.

Aizawa, Kazunori (Kao Corp., Japan). Jpn. Kokai Tokkyo Koho JP 10168053 A2 19980623 Heisei, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-331842 19961212.

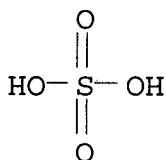
AB The surfactants are manufd. by sulfation of alkylene oxide-higher alc. adducts and followed by neutralization, where the neutralized reaction products are irradiated with UV rays to lighten the **color**. Sulfation of Emulgen 102KG (C12/C14 alc. ethoxylate) with SO3 gas, neutralization with aq. NaOH, and diln. with water gave a 27% aq. soln. of ethoxylate sulfate ester salt, which exhibited **color** phase 38 and 9 and peroxide value 0.1> and 0.25 meq/kg, resp., before and after irradiation with UV at 40.degree. for 2 h and adjustment of pH to 7.0.

IT **7664-93-9DP, Sulfuric acid**,

esters with C12-14-**ethoxylated** alcs., preparation
(manuf. of light-**colored** anionic surfactants with UV
irradn.)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C07C305-02

ICS C07C303-24; C11D001-14

CC 46-3 (Surface Active Agents and Detergents)

Section cross-reference(s): 35

ST light **colored** anionic surfactant UV irradn; sulfate ester
alc ethoxylate **coloration** UV

IT Alcohols, preparation

(C12-14, Kalcohol 724A; manuf. of light-**colored** anionic
surfactants with UV irradn.)

IT Alcohols, preparation

(C12-14, ethoxylated, Emulgen 102KG, sulfated after irradn. with
UV for 2 h and adjustment of pH to 7.0; manuf. of light-
colored anionic surfactants with UV irradn.)

IT Polyoxyalkylenes, preparation

(alkyl group-terminated, sulfates; manuf. of light-
colored anionic surfactants with UV irradn.)

IT Surfactants

(anionic; manuf. of light-**colored** anionic surfactants
with UV irradn.)

IT Alcohols, preparation

(long-chain, ethoxylate, sulfated after irradn. with UV for 2 h
and adjustment of pH to 7.0; manuf. of light-**colored**
anionic surfactants with UV irradn.)

IT Decolorization

Sulfation

UV radiation

(manuf. of light-**colored** anionic surfactants with UV
irradn.)

IT 7664-93-9DP, Sulfuric acid,

esters with C12-14-**ethoxylated** alcs., preparation

210589-08-5P

(manuf. of light-**colored** anionic surfactants with UV
irradn.)

IT 7446-11-9, Sulfur trioxide, reactions 7790-94-5, Chlorosulfonic
acid

(manuf. of light-**colored** anionic surfactants with UV
irradn.)

IT 13463-67-7, Titanium oxide, uses

(photocatalyst; manuf. of light-**colored** anionic

surfactants with UV irradiation.)

L91 ANSWER 9 OF 26 HCA COPYRIGHT 2003 ACS

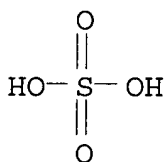
129:5895 Liquid detergents for washing windows and mirrors. Popescu, Marioara; Dragu, Elena; Szabo, Gyorgy; Burghina, Mariana (SC "Romtensid" SA, Rom.). Rom. RO 106756 B1 19930630, 3 pp. (Romanian). CODEN: RUXXA3. APPLICATION: RO 1992-9200028 19920127.

AB Aq. detergents for washing windows and mirrors contain Na, K, or NH₄ salts of sulfated ethoxylated C10-14 fatty alcs. (ethoxylation degree 2-4) or ethoxylated nonylphenol (ethoxylation degree 8-12) 0.2-1, **colorant** 0.03-0.05, iso-PrOH, BuOH, or iso-BuOH 5-15, and HCHO 0.02-0.05%.

IT **7664-93-9D, Sulfuric acid, esters** with **ethoxylated** fatty alcs., salts, uses (liq. detergents for washing windows and mirrors)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC C11D001-12

CC 46-6 (Surface Active Agents and Detergents)
Section cross-reference(s): 57

IT 67-63-0, Isopropanol, uses 71-36-3, Butanol, uses 78-83-1, Isobutanol, uses **7664-93-9D, Sulfuric acid, esters** with **ethoxylated** fatty alcs., salts, uses 9016-45-9, Ethoxylated nonylphenol 25322-68-3D, Polyethylene glycol, ethers with fatty alcs., sulfate salts
(liq. detergents for washing windows and mirrors)

L91 ANSWER 10 OF 26 HCA COPYRIGHT 2003 ACS

128:296187 Liquid products for cleaning. Popescu, Maricara; Mutiu, Carolina; Kovacs, Pavel; Burghina, Mariana (SC "Romtensid" SA, Rom.). Rom. RO 106582 B1 19930531, 3 pp. (Romanian). CODEN: RUXXA3. APPLICATION: RO 1992-9200467 19920406.

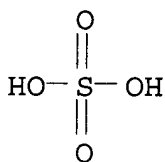
AB Liqs. for cleaning dishes and hard surfaces contain ethoxylated C10-14 fatty alcs. (ethoxylation degree 2-4) esters with Na, NH₄, or K sulfate salts .ltoreq.20, Na or K linear alkylbenzenesulfonate .ltoreq.20, ethoxylated nonylphenol (ethoxylation degree 8-12) .ltoreq.15, Na citrate .ltoreq.5, NaCl .ltoreq.6, coco fatty acid diethanolamide or oleic acid diethanolamide .ltoreq.5, Na₃PO₄ .ltoreq.9, Na ethylenediaminetetraacetate .ltoreq.3, citric-smelling perfume .ltoreq.0.5, and **dye** .ltoreq.0.5%, with the remainder being water.

IT **7664-93-9D, Sulfuric acid, esters** with **ethoxylated** C10-14 alcs., salts, uses

(liqs. for cleaning dishes and hard surfaces)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC C11D001-02; C11D001-83

CC 46-6 (Surface Active Agents and Detergents)

IT 64-02-8, Sodium ethylenediaminetetraacetate 93-83-4,
 N,N-Bis(2-hydroxyethyl)oleamide 98-11-3D, Benzenesulfonic acid,
 linear alkyl derivs., salts, uses 111-42-2D, amides with coco
 fatty acids 994-36-5, Sodium citrate 7601-54-9, Trisodium
 phosphate 7647-14-5, Sodium chloride, uses **7664-93-9D**,
Sulfuric acid, esters with
ethoxylated C10-14 alcs., salts, uses 9016-45-9,
 Ethoxylated nonylphenol 25322-68-3D, ethers with C10-14 alcs.,
 esters with sulfate salts 34870-92-3D, C10-14 alkyl ethers, salts
 (liqs. for cleaning dishes and hard surfaces)

L91 ANSWER 11 OF 26 HCA COPYRIGHT 2003 ACS

125:198451 Scouring agent compositions mainly containing ethylene
 oxide-propylene oxide block copolymer-type nonionic surfactants.
 Hokoyama, Masahiro; Kitagawa, Mieko; Tsunekawa, Toshio; Ito, Ryuichi
 (Sanyo Chemical Ind Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 08158270
 A2 19960618 Heisei, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION:
 JP 1994-329377 19941202.

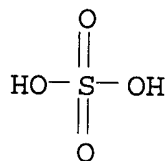
AB Title compns., useful for both natural and synthetic polymer fabrics
 showing low viscosity at high concn. and low temp., prevention of
 bubbling in scouring, and effective emulsification for removed oil
 and wax in dyeing, comprise 50-95% random or block copolymer
 $\text{RO}[(\text{C}_2\text{H}_4\text{O})_n(\text{C}_3\text{H}_6\text{O})_m](\text{C}_2\text{H}_4\text{O})_k(\text{C}_3\text{H}_6\text{O})_l\text{H}$ [I; R = C8-18 aliph.
 hydrocarbon group; n = 1-8; m = 1-5; k = 2-15; l = 1-5] and 5-50%
 anionic surfactants. Thus, I (R = lauryl; n = 6; m, l = 2; k = 5)
 500, 40% aq. Na octyl sulfate 200, coco oil fatty acid 50, and water
 250 g were mixed to give title compn., with which a polyester fabric
 was scoured to show 0.11% residual fats, inhibition of bubbling, and
 effective removal of oils.

IT **7664-93-9D, Sulfuric acid, sodium salt,**
ester with coco oil alc.

(anionic surfactants; for scouring agents contg. ethylene
 oxide-propylene oxide block copolymer-based nonionic surfactants
 for dyeing of fibers)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IT 106392-12-5D, Ethylene oxide-propylene oxide block
copolymer, C12-13 alkyl ether
(scouring agents contg. ethylene oxide-propylene oxide block
copolymer-based nonionic surfactants for dyeing of fibers)

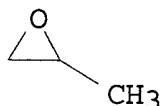
RN 106392-12-5 HCA

CN Oxirane, methyl-, polymer with oxirane, block (9CI) (CA INDEX NAME)

CM 1

CRN 75-56-9

CMF C3 H6 O



CM 2

CRN 75-21-8

CMF C2 H4 O



IC ICM D06P005-00
ICS D06L001-14

CC 40-8 (Textiles and Fibers)
Section cross-reference(s): 46

IT Textiles
(wool, scouring agents contg. ethylene oxide-propylene
oxide block copolymer-based nonionic surfactants for dyeing of
fibers)

IT 142-31-4, Sodium octyl sulfate 7664-93-9D,
Sulfuric acid, sodium salt, **ester** with
coco oil alc. 9004-82-4, Poly(oxyethylene) lauryl ether sodium
sulfate 33939-64-9 52846-42-1
(anionic surfactants; for scouring agents contg. ethylene
oxide-propylene oxide block copolymer-based nonionic surfactants
for dyeing of fibers)

IT 106392-12-5D, Ethylene oxide-propylene oxide block

copolymer, C12-13 alkyl ether 141615-70-5
 (scouring agents contg. ethylene oxide-propylene oxide block
 copolymer-based nonionic surfactants for dyeing of fibers)

L91 ANSWER 12 OF 26 HCA COPYRIGHT 2003 ACS

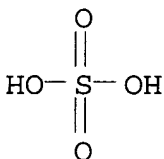
124:345973 Scouring agent compositions with low viscosity at low
 temperature providing stable emulsions of the removed oils.
 Hokoyama, Masahiro; Yamamoto, Sakae; Tsunekawa, Toshio; Ito, Ryuichi
 (Sanyo Chemical Ind Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 08060532
 A2 19960305 Heisei, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION:
 JP 1994-224184 19940824.

AB The title compns. comprise 50-95% nonionic surfactants
 $\text{RO}[(\text{C}_2\text{H}_4\text{O})_n/(\text{C}_3\text{H}_6\text{O})_m](\text{C}_2\text{H}_4\text{O})_k\text{H}$ (I, R = C8-18 aliph. group; n = 1-8;
 m = 1-5; k = 2-10, as random copolymer) and 5-50% anionic
 surfactants. A compn. effective on polyester, polyamide, cotton,
 and wool textiles comprised I (R = lauryl; n = 6; m 2; k =
 5) 500, 40% aq. Na octyl sulfate 200, coco fatty acid 50, and water
 250 g.

IT **7664-93-9D, Sulfuric acid, coco**
esters, potassium salt 9003-11-6D,
Polyethylene polypropylene glycol,
 Dobanol 23 ether
 (scouring agent compns. with low viscosity at low temp. providing
 stable emulsions of the removed oils)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



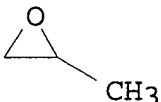
RN 9003-11-6 HCA

CN Oxirane, methyl-, polymer with oxirane (9CI) (CA INDEX NAME)

CM 1

CRN 75-56-9

CMF C3 H6 O



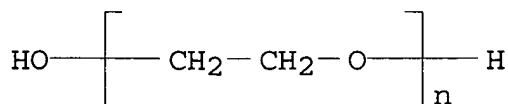
CM 2

CRN 75-21-8

CMF C2 H4 O



- IC ICM D06L001-14
 CC 40-8 (Textiles and Fibers)
 IT Alcohols, uses
 (C12-13, **alkoxylated**; scouring agent compns. with low
 viscosity at low temp. providing stable emulsions of the removed
 oils)
 IT 126-92-1, Sodium octyl sulfate **7664-93-9D**,
Sulfuric acid, coco **esters**, potassium
 salt **9003-11-6D**, **Polyethylene**
polypropylene glycol, Dobanol 23 ether
 68238-81-3, **Polyethylene polypropylene**
glycol lauryl ether
 (scouring agent compns. with low viscosity at low temp. providing
 stable emulsions of the removed oils)
- L91 ANSWER 13 OF 26 HCA COPYRIGHT 2003 ACS
 122:320875 Wetted, mineral **wool**-free compositions for
 acoustical tile manufacture, and the dry, mineral **wool**
 -free acoustical tiles obtained. Baig, Mirza A.; Englert, Mark H.;
 Gaynor, John C.; Kacner, Michael A.; Singh, Rajinder (USG Interiors,
 Inc., USA). U.S. US 5395438 A 19950307, 7 pp. (English). CODEN:
 USXXAM. APPLICATION: US 1994-182263 19940114.
- AB The compns. comprise (based on dry solids) expanded perlite
 .gtorsim.10, starch gel binder .gtorsim.5, inorg. mineral filler
 selected from the group consisting of calcium sulfate dihydrate,
 calcium sulfate hemihydrate, silicates, limestone and alumina
 .gtorsim.35, and fibrous reinforcing agent selected from the group
 consisting of polymeric fibers and glass fibers 2-10 wt.%. These
 mineral **wool**-free acoustical tiles have acoustical
 properties comparable to the com. available cast mineral
wool tiles.
- IT **25322-68-3**
 (surfactant; wetted, mineral **wool**-free compns. for
 acoustical tile manuf., and the dry, mineral **wool**-free
 acoustical tiles obtained)
- RN **25322-68-3** HCA
 CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA
 INDEX NAME)

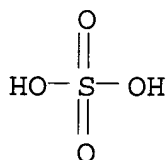


- IT **7664-93-9D**, **Sulfuric acid**, alkyl
esters

(surfactants; wetted, mineral **wool**-free compns. for
acoustical tile manuf., and the dry, mineral **wool**-free
acoustical tiles obtained)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C09D001-00

NCL 106214000

CC 58-3 (Cement, Concrete, and Related Building Materials)

IT Kaolin, uses

Limestone, uses

(filler; wetted, mineral **wool**-free compns. for
acoustical tile manuf., and the dry, mineral **wool**-free
acoustical tiles obtained)

IT Silicates, uses

(fillers; wetted, mineral **wool**-free compns. for
acoustical tile manuf., and the dry, mineral **wool**-free
acoustical tiles obtained)

IT Filling materials

(inorg., mineral; wetted, mineral **wool**-free compns. for
acoustical tile manuf., and the dry, mineral **wool**-free
acoustical tiles obtained)

IT Pulp, cellulose

Stucco

Surfactants

(wetted, mineral **wool**-free compns. for acoustical tile
manuf., and the dry, mineral **wool**-free acoustical tiles
obtained)

IT Glass fibers, uses

Synthetic fibers, polymeric

(wetted, mineral **wool**-free compns. for acoustical tile
manuf., and the dry, mineral **wool**-free acoustical tiles
obtained)

IT Tiles

(acoustic, wetted, mineral **wool**-free compns. for
acoustical tile manuf., and the dry, mineral **wool**-free
acoustical tiles obtained)

IT Sulfonates

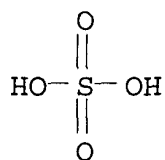
(alkane, surfactants; wetted, mineral **wool**-free compns.
for acoustical tile manuf., and the dry, mineral **wool**-
free acoustical tiles obtained)

IT Sulfonates

(alkene, surfactants; wetted, mineral **wool**-free compns.
for acoustical tile manuf., and the dry, mineral **wool**-
free acoustical tiles obtained)

- IT Clays, uses
(ball, filler; wetted, mineral **wool**-free compns. for
acoustical tile manuf., and the dry, mineral **wool**-free
acoustical tiles obtained)
- IT Perlite
(expanded, wetted, mineral **wool**-free compns. for
acoustical tile manuf., and the dry, mineral **wool**-free
acoustical tiles obtained)
- IT Wood
(fibers, wetted, mineral **wool**-free compns. for
acoustical tile manuf., and the dry, mineral **wool**-free
acoustical tiles obtained)
- IT Carboxylic acids, uses
(salts, surfactants; wetted, mineral **wool**-free compns.
for acoustical tile manuf., and the dry, mineral **wool**-
free acoustical tiles obtained)
- IT Sound insulators
(tiles, wetted, mineral **wool**-free compns. for
acoustical tile manuf., and the dry, mineral **wool**-free
acoustical tiles obtained)
- IT 9003-53-6, Polystyrene
(beads; wetted, mineral **wool**-free compns. for
acoustical tile manuf., and the dry, mineral **wool**-free
acoustical tiles obtained)
- IT 9005-25-8, Starch, uses
(binder; wetted, mineral **wool**-free compns. for
acoustical tile manuf., and the dry, mineral **wool**-free
acoustical tiles obtained)
- IT 1344-28-1, Alumina, uses 10101-41-4, Calcium sulfate dihydrate
(filler; wetted, mineral **wool**-free compns. for
acoustical tile manuf., and the dry, mineral **wool**-free
acoustical tiles obtained)
- IT 9002-89-5, Polyvinyl alcohol
(foam; wetted, mineral **wool**-free compns. for acoustical
tile manuf., and the dry, mineral **wool**-free acoustical
tiles obtained)
- IT 1338-39-2, Sorbitan monolaurate 9004-81-3, Polyoxyethylene
monolaurate 25322-68-3 25496-72-4, Glycerin monooleate
163516-23-2, Magrabar VS 100
(surfactant; wetted, mineral **wool**-free compns. for
acoustical tile manuf., and the dry, mineral **wool**-free
acoustical tiles obtained)
- IT 7664-93-9D, Sulfuric acid, alkyl
esters
(surfactants; wetted, mineral **wool**-free compns. for
acoustical tile manuf., and the dry, mineral **wool**-free
acoustical tiles obtained)
- IT 10034-76-1, Calcium sulfate hemihydrate
(wetted, mineral **wool**-free compns. for acoustical tile
manuf., and the dry, mineral **wool**-free acoustical tiles
obtained)

- L91 ANSWER 14 OF 26 HCA COPYRIGHT 2003 ACS
 120:301670 Concentrated aqueous liquid detergent compositions containing **dye** transfer inhibitor. Cauwberghs, Serge Gabriel; Herbots, Ivan Maurice Alfons Jan (Procter and Gamble Co., USA). Eur. Pat. Appl. EP 576778 A1 19940105, 7 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, PT, SE. (English). CODEN: EPXXDW. APPLICATION: EP 1992-870098 19920703.
- AB Poly(vinylpyrrolidone) (I) is useful as a **dye** transfer inhibitor in detergent compns. contg. an alkyl ether sulfate as the main anionic surfactant. A liq. compn. contained C13-15 alkyl ether sulfate-23, nonionic surfactants 15, builders 16, EtOH 2, 1,2-propanediol 13, H2NCH2CH2OH 13, protease 1.8, cellulase 0.15, boric acid 2.5, I (Gaftex AE K15) 0.5, and water 8%.
- IT 7664-93-9D, Sulfuric acid, esters with ethoxylated alcs. (liq. laundry detergents contg., **dye** transfer inhibitor for)
- RN 7664-93-9 HCA
 CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



- IC ICM C11D003-37
 ICS C11D001-29; C11D001-831
- CC 46-5 (Surface Active Agents and Detergents)
- ST polyvinylpyrrolidone **dye** transfer inhibitor detergent; laundry detergent **dye** transfer inhibitor; sulfate detergent **dye** transfer inhibitor
- IT **Dyes**
 (transfer inhibitor for, liq. laundry detergents contg.)
- IT Alcohols, compounds
 (ethoxylated, sulfates, liq. detergents contg., **dye** transfer inhibitor for)
- IT Detergents
 (laundry, liq., **dye** transfer inhibitor in, poly(vinylpyrrolidone) as)
- IT 9003-39-8, Poly(vinylpyrrolidone)
 (**dye** transfer inhibitor, in liq. laundry detergents contg. alkyl ether sulfate)
- IT 7664-93-9D, Sulfuric acid, esters with ethoxylated alcs. 25322-68-3D, Polyethylene glycol, monoalkyl ethers, sulfates (liq. laundry detergents contg., **dye** transfer inhibitor for)

- L91 ANSWER 15 OF 26 HCA COPYRIGHT 2003 ACS
 120:279849 Mild, substantially **colorless** shampoo composition.

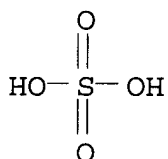
Kalla, Karen Kay (Procter and Gamble Co., USA). PCT Int. Appl. WO 9405256 A1 19940317, 32 pp. DESIGNATED STATES: W: AU, BB, BG, BR, BY, CA, CZ, FI, HU, JP, KP, KR, KZ, LK, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, VN; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1993-US8137 19930830. PRIORITY: US 1992-941594 19920908.

AB A mild, substantially **colorless** shampoo compn. comprises (a) 2-20% an alkyl ethoxylated sulfate anionic surfactant having an av. degree of ethoxylation of .gtoreq.2.0, (b) 1-15% an amphoteric surfactant selected from the group consisting of betaines, imidazolines, aminoalkanoates, iminodialkanoates, and mixts. thereof, (c) 0.5-10% an N-acyl amino acid surfactant, (d) .gtoreq.0.05% carbonyl-contg. perfume compds., and (e) water. The compn. is substantially free of alkyl sulfate anionic surfactant, free primary amines, ammonium ions, and amide foam boosters and the compn. has an absorbance value at 440 nm in a 1.0 cm path length of <0.030 after storage at 38.degree. for 30 days. For example, a shampoo contained Na laureth-3-sulfate 10, cocoamidopropyl betaine 5, Na lauroyl sarcosinate 4.5, perfume 0.3, DMDM hydantoin 0.37, EDTA 0.1, citric acid 0.2, NaCl 2, and water to 100%.

IT **7664-93-9D, Sulfuric acid, alkyl esters, ethoxylated**
(surfactants, mild shampoos contg.)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM A61K007-50

CC 62-3 (Essential Oils and Cosmetics)

IT **7664-93-9D, Sulfuric acid, alkyl esters, ethoxylated** 28299-33-4D, Imidazoline, derivs.
(surfactants, mild shampoos contg.)

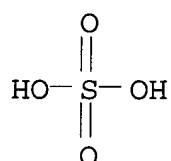
L91 ANSWER 16 OF 26 HCA COPYRIGHT 2003 ACS

113:134220 Alkoxyated polyamine dispersant for nonaqueous systems in **paints** and inks. Nishizaki, Shoichi; Mayuzumi, Tominobu (Daiichi Kogyo Seiyaku Co., Ltd., Japan). Eur. Pat. Appl. EP 359034 A1 19900321, 15 pp. DESIGNATED STATES: R: DE, FR, GB. (English). CODEN: EPXXDW. APPLICATION: EP 1989-116024 19890830. PRIORITY: JP 1988-217540 19880831; JP 1988-280872 19881107.

AB The title stable dispersant A[(CxH2xO)b(CyH2yO)c(CxH2xO)dH]e (A = polyamine residue; x = 2 or 3; y = 8-30; b = 0-50; c = 0-10; d = 1-50; e = 5-300; mol. wt. 1000-1,000,000) is used to disperse insol. fine powders in nonaq. liq. in a short period of time and give

long-term dispersion stability without allowing hard cake formation. Thus, adding 10% carbon black (0.02 .mu.m) to 1 kg mineral terpene contg. 2% butoxylated/ethoxylated (15/85) triethylenetetraamine (mol. wt. 6000) gave a dispersion showing only slight pptn. after 100 days at 30.degree..

IT 7664-93-9D, Sulfuric acid,
esters with alkoxyated pentaethylenehexamine,
monoethanol amine salts
(dispersants, for powd. pigments in nonaq. inks and
paints)
RN 7664-93-9 HCA
CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM B01F017-46
ICS C09D017-00; C09B067-00
CC 42-5 (Coatings, Inks, and Related Products)
ST polyamine polyoxyalkylene dispersant carbon black; paint
dispersant polyamine polyaryalkylene; ink dispersant polyamine
polyaryalkylene
IT Dispersing agents
(alkoxyated polyamines, prepn. of, for powd. pigments
for nonaq. inks and paints)
IT Fatty acids, esters
(coco, alkoxyated, reaction products, with
tetraethylenepentamine, dispersants, for powd. pigments
)
IT Polyoxyalkylenes, compounds
(mono(coco acyl)-terminated, reaction products, with
tetraethylenepentaamine, dispersants, for powd. pigments
)
IT Polyoxyalkylenes, compounds
(mono(tallow acyl)-terminated, reaction products, with
polyethylenimine, dispersants, for powd. pigments)
IT Polyoxyalkylenes, uses and miscellaneous
(polyamine-, dispersants, for powd. pigments in nonaq.
inks and paints)
IT Polyamines
(polyoxyalkylene-, dispersants, for powd. pigments in
nonaq. inks and paints)
IT Fatty acids, esters
(tallow, alkoxyated, reaction products, with polyethylenimine,
dispersants, for powd. pigments)
IT 112-80-1D, Oleic acid, reaction products with polyethylenimine and
polyoxyalkylenes 129342-85-4D, ethers with polyamines
129342-86-5D, ethers with polyamines 129371-05-7D, ethers with

polyamines

(dispersants, for powd. **pigments** for nonaq. inks and **paints**)

IT 110-15-6D, Succinic acid, esters with alkoxyated tetraethylenepentaamine coco fatty acid monoamides 112-24-3D, polyoxyalkylene ethers 112-57-2D, coco fatty amide derivs., ethers with mixed polyoxyalkylenes 4067-16-7D, Pentaethylenehexamine, ethers with mixed polyoxyalkylenes 7664-38-2D, Phosphoric acid, esters with alkoxyated polyethylenimine 7664-93-9D, **Sulfuric acid, esters with alkoxyated** pentaethylenehexamine, monoethanol amine salts 9002-98-6D, Polyethylenimine, ethers with mixed polyoxyalkylenes 27517-34-6D, ethers with polyamines 29756-57-8D, polyethylenimine adduct, ethers with mixed polyoxyalkylenes 78339-21-6D, ether with pentaethylenehexamine 129342-93-4D, N-lauroyl-terminated (dispersants, for powd. **pigments** in nonaq. inks and **paints**)

L91 ANSWER 17 OF 26 HCA COPYRIGHT 2003 ACS

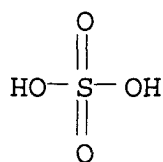
111:135962 Process for dyeing natural polyamide fibers with reactive dyes. Mosimann, Walter; Maeusezahl, Dieter (Ciba-Geigy A.-G., Switz.). Eur. Pat. Appl. EP 312493 A1 19890419, 13 pp. DESIGNATED STATES: R: BE, CH, DE, ES, FR, GB, IT, LI. (German). CODEN: EPXXDW. APPLICATION: EP 1988-810631 19880915. PRIORITY: CH 1987-4024 19871014.

AB Natural polyamide fibers, esp. **wool**, are dyed by reactive dyes by an exhaustion process in the presence of an auxiliary which is a combination of a quaternary ammonium deriv. of a polyglycol compd., .gtoreq. dibasic O acid derived ester or salt with polyglycol compds., whereby the quaternary ammonium compds. and ester are derived from a C12-24 aliph. amine, and RO(ZO)mH where R = C.gtoreq.8, Z = ethylene, propylene, m = 3-25. **Wool** yarn (10 g) was dyed in a 200 mL bath contg. addn. product of 18 mol ethylene oxide with 1 mol C12-18 fatty alc. mixt. 0.1, a mixt. of chloroacetamide quaternized **ethoxylated** tallow alkylamine and **ethoxylated** tallow alkylamine monosulfite ester ammonium salt 0.2, and an NHCOCBr:CH2 group-contg. azo dye 0.24 g to give a red dyeing with good use properties, no ppt. during dyeing, and no equipment staining.

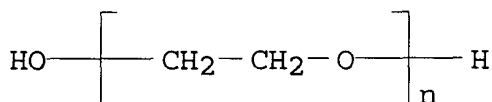
IT **7664-93-9D, Sulfuric acid, esters with polyoxyalkylene, ammonium salt 25322-68-3D, Polyethylene glycol, C12-18 alkyl ethers**
(auxiliaries, for reactive exhaust dyeing of **wool**)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



RN 25322-68-3 HCA
 CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



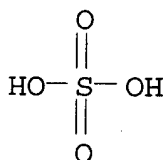
IC ICM D06P003-10
 ICS D06P001-613
 CC 40-6 (Textiles and Fibers)
 ST dyeing reactive wool exhaust auxiliary
 IT Alcohols, compounds
 (C12-18, **ethoxylated**, auxiliaries, for reactive exhaust dyeing of wool)
 IT Quaternary ammonium compounds, compounds
 (**ethoxylated**, auxiliaries, for reactive exhaust dyeing of wool)
 IT Dyeing
 (reactive, exhaust, of wool, auxiliaries for)
 IT 7664-93-9D, **Sulfuric acid**,
esters with polyoxyalkylene, ammonium salt
 25322-68-3D, **Polyethylene glycol**, C12-18
 alkyl ethers 122729-54-8
 (auxiliaries, for reactive exhaust dyeing of wool)

L91 ANSWER 18 OF 26 HCA COPYRIGHT 2003 ACS

110:82276 Shampoos containing C16-22-acyl compounds or C16-22-alkylamine oxides and ethoxylated alkyl sulfates and alkyl sulfates.
 Hutchinson, Neal Kevin; Grote, Mark Bernard; Dzialo, Kathleen Brown
 (Procter and Gamble Co., USA). Eur. Pat. Appl. EP 285389 A2
 19881005, 6 pp. DESIGNATED STATES: R: AT, BE, CH, DE, FR, GB, GR, IT, LI, LU, NL, SE. (English). CODEN: EPXXDW. APPLICATION: EP 1988-302822 19880330. PRIORITY: US 1987-33443 19870401; US 1987-36656 19870410.

AB Shampoos contain a mixt. of ethoxylated alkyl sulfates and alkyl sulfates 10-40, a dispersed, insol., nonvolatile silicone 0.01-10, a C16-22-long-chain acyl deriv. or a C16-22-long-chain amino oxide 0.5-5% by wt., and H2O. The molar ratio of ethoxylated alkyl sulfate to alkyl sulfate is 3:2-6:1. An antidandruff shampoo contained 28% ammonium Laureth-3-sulfate 38.6, 25% ammonim lauryl sulfate 9.6, cocoamide MEA 3.0, glycol distearate 3.0, dimethacone 1.0, 85% Na cocoyl isethionate 4.7, 25% Zn pyrithione 4.0,

color, preservative, pH controlling agents (pH 6.5),
viscosity controlling agents, etc. q.s. and water to 100% by wt.
IT 7664-93-9D, Sulfuric acid,
esters, salts
(shampoos contg. ethoxylated alkyl sulfates and)
RN 7664-93-9 HCA
CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM A61K007-08
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 63
IT 7664-93-9D, Sulfuric acid,
esters, salts
(shampoos contg. ethoxylated alkyl sulfates and)

L91 ANSWER 19 OF 26 HCA COPYRIGHT 2003 ACS
107:161395 Mild skin cleansing soap bar and method of making it.
Medcalf, Ralph Ferdinand, Jr.; Visscher, Martha Orrico; Knochel,
John Robert; Dahlgren, Richard Marc (Procter and Gamble Co., USA).
Eur. Pat. Appl. EP 227321 A2 19870701, 30 pp. DESIGNATED STATES: R:
AT, BE, CH, DE, FR, GB, GR, IT, LI, LU, NL, SE. (English). CODEN:
EPXXDW. APPLICATION: EP 1986-309259 19861127. PRIORITY: US
1985-803742 19851202.

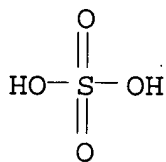
AB A mild soap bar comprises 50-90% soap and a uniformly distributed
hydrated cationic skin conditioner chosen from polysaccharides,
copolymers of saccharides with cationic monomers,
polyalkyleneimines, ethoxylated polyalkyleneimines, and
N,N'-bis[3-(dimethylamino)propyl]urea-O(CH₂CH₂Cl)₂ copolymer (I).
The mild soap bar is composed of the hydrated polymer 0.2-5,
surface-active agents (which can be .gtoreq.50 wt.% C8-22 fatty
acid, esp. coconut tallow, soaps and .ltoreq.20 wt.% synthetic
surfactant) and a skin moisturizer 0-20%. A soap bar was prepd.
contg. a base soap (50:50 tallow-coconut) 66.3, coconut fatty acids
5.6, water 10.0, glycerin 4.0, NaCl 1.0, Jaguar C-145 (a quaternized
guar gum deriv.) 1.0, and addnl. components (perfume, color
, etc.) 2.1 wt.%. In clin. testing by grading scales of skin
dryness, smoothness, and erythema, the mild soap bar was better than
a com. std. mild soap bar. Suitable synthetic surfactants can be
chosen from alkyl glyceryl ether sulfonates, anionic acyl
sarcosines, Me aryl taurates, N-acyl glutamates, alkyl glucosides,
acyl isethionates, alkyl sulfosuccinates, alkyl and ethoxylated
alkyl phosphates, Me glucose esters, protein condensates,
ethoxylated alkyl sulfates, amine oxides, betaines, and sultaines.

IT 7664-93-9D, Sulfuric acid,
ethoxylated alkyl esters

(mild soap bars contg.)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM A61K007-50

ICS C11D009-30

CC 62-4 (Essential Oils and Cosmetics)

IT 56-81-5, Glycerin, biological studies 56-81-5D, Glycerol, alkyl ethers, sulfonates 56-86-0D, Glutamic acid, N-acyl derivs. 107-35-7D, acyl derivs. 107-36-8D, Isethionic acid, O-esters 107-97-1D, Sarcosine, acyl derivs. 709-50-2D, esters 5138-18-1D, Sulfosuccinic acid, alkyl esters 7664-38-2D, Phosphoric acid, alkyl and ethoxylated alkyl esters **7664-93-9D, Sulfuric acid, ethoxylated alkyl esters** 9000-30-0D, Guar gum, cationic derivs. 9004-62-0D, Hydroxyethyl cellulose, cationic derivs. 26590-05-6, Merquat 550 65497-29-2 68555-36-2 81859-24-7, JR 400 (mild soap bars contg.)

L91 ANSWER 20 OF 26 HCA COPYRIGHT 2003 ACS

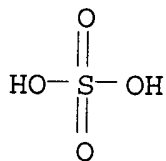
103:124967 Textile softeners. Mutiu, Carolina; Maurer, Evlad Viliam; Laubling, Francisc (Intreprinderea de Detergenti, Timisoara, Rom.). Rom. RO 84337 B 19840730, 2 pp. (Romanian). CODEN: RUXXA3. APPLICATION: RO 1982-107588 19820519.

AB Aq. creaseproofing softeners for textiles in dyeing, shrinking, and washing contain ethanolamine salts of alkyl phosphates of **ethoxylated** (d.p. 3-9) C16-18 fatty alcs. (II) 15-35, **polyethylene glycol** stearyl ether (I) [9005-00-9] (d.p. 6-12) 10-25, and sulfated castor oil Na salt 10-20%. Thus, I (d.p. 8) 20, sulfated castor oil Na salt 15, II (d.p. 3) 27, and water 30 kg were mixed 1 h at 50.degree. to give a 49-55% solids yellow-white paste. Use of the softeners in dyeing polyester fabrics, shrinking **wool** and **wool-polyester** fabric, and washing **wool**, **wool-polyester**, and **wool-rayon** fabrics is described.

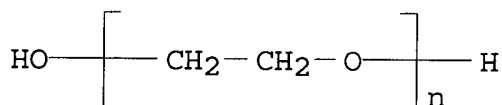
IT **7664-93-9D, esters** with castor oil, sodium salts **25322-68-3D**, ethers, phosphates, ethanolamine salts (creaseproofing softener contg., for textiles)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



RN 25322-68-3 HCA
 CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



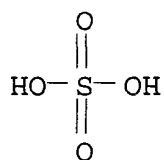
IC D06M013-54
 CC 40-9 (Textiles)
 ST creaseproofing softener textile; polyoxyethylene creaseproofing softener; sulfate castor oil softener; ethanolamine phosphate polyoxyethylene softener; polyester fabric softener; wool fabric softener; rayon fabric softener
 IT Polyester fibers, uses and miscellaneous
 (wool blends, creaseproofing softeners for)
 IT Rayon, uses and miscellaneous
 (wool blends, washing of, creaseproofing softeners for)
 IT 141-43-5D, salts with polyoxyethylene ether alkyl phosphates
 7664-93-9D, esters with castor oil, sodium salts
 9005-00-9 **25322-68-3D**, ethers, phosphates, ethanolamine salts
 (creaseproofing softener contg., for textiles)

L91 ANSWER 21 OF 26 HCA COPYRIGHT 2003 ACS
 91:212600 Anionic stabilized fat liquors from animal oils. Selvarangan, Ramanujam; Vijayalakshmi, Krishna Iyer; Rao, Dharmagadi Raghunatha; Rao, Vemu Venkata Muralidhara (Council of Scientific and Industrial Research (India), India). Indian IN 146476 19790616, 10 pp. (English). CODEN: INXXAP. APPLICATION: IN 1976-CA752 19760429.

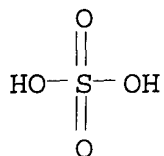
AB Cenlesol 1 and Cenlesol 60, which are prepd. by the ethoxylation and sulfation of sardine oil and frog oil, resp., are useful as fat liquors for leathers. The fat liquors are homogeneous, clear, and stable and impart a good feel and fullness to leathers.

IT **7664-93-9D**, esters with **ethoxylated** frog and sardine oils
 (fatliquoring agents)

RN 7664-93-9 HCA
 CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



- IC C14C003-14
 CC 41-4 (Leather and Related Materials)
 IT 75-21-8D, reaction products with frog and sardine oils, sulfated
 7664-93-9D, esters with ethoxylated frog
 and sardine oils
 (fatliquoring agents)
- L91 ANSWER 22 OF 26 HCA COPYRIGHT 2003 ACS
 91:93372 Synthetic alcohol sulfate salt composition. Matsumura,
 Masanari; Hamamura, Tamotsu; Asaka, Hiroyasu; Yamagishi, Fumiaki
 (Daiichi Kogyo Seiyaku Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP
 54058693 19790511 Showa, 4 pp. (Japanese). CODEN: JKXXAF.
 APPLICATION: JP 1977-126003 19771019.
- AB A salt of a monoalkyl sulfate prepd. from synthetic alcs. (e.g.,
 C14-18) is mixed with lanolin alc. and/or acid derivs. (e.g.,
ethoxylates) and used as a detergent for washing
wool products. The washed products have a satisfactory
 hand.
- IT 7664-93-9D, monoalkyl **esters**, sodium salts
 (detergents, for washing **wool** products)
- RN 7664-93-9 HCA
 CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



- IC C11D010-02
 CC 46-5 (Surface Active Agents and Detergents)
 ST **wool** product washing agent; sulfate alkyl washing
wool; lanolin deriv washing **wool**
- IT Lanolin
 (derivs., detergents contg., for washing **wool** products)
- IT Detergents
 (lanolin deriv.-sodium alkyl sulfate mixts., for washing
wool products)
- IT 7664-93-9D, monoalkyl esters, sodium salts
 (detergents, for washing **wool** products)
- L91 ANSWER 23 OF 26 HCA COPYRIGHT 2003 ACS
 65:83453 Original Reference No. 65:15678h,15679a Photometric titration

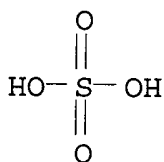
based on the distimulus **colorimetry**. III. Titration of ionic detergents. Ito, Mitsuo; Musha, Soichiro (Univ. Osaka, Japan). Bull. Univ. Osaka Prefect., Ser. A, 14(2), 151-8 (English) 1965.

AB cf. CA 62, 2232h. An improved photometric titrn. is described for ionic detergents based on Hartley's method (H. and Runnicles, CA 33, 36553). From the fundamental expts., the effect of turbidity which appears near the end point can be eliminated by the aid of distimulus titrn. app. and by the addn. of a nonionic detergent. By this technique 10-6 equiv. of detergents such as alkylbenzenesulfonates and alkyl ether sulfates can be titrated with a deviation of about 0.7% in 15 min.

IT 7664-93-9, **Sulfuric acid**
(**esters**, with **polyethylene glycol**
ethers, Na salts, detn. by photometric titration)

RN 7664-93-9 HCA

CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



CC 53 (Surface-Active Agents and Detergents)

IT 7664-93-9, **Sulfuric acid**
(**esters**, with **polyethylene glycol**
ethers, Na salts, detn. by photometric titration)

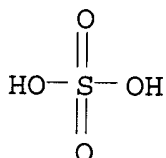
L91 ANSWER 24 OF 26 HCA COPYRIGHT 2003 ACS

64:45153 Original Reference No. 64:8504h,8505a Liquid detergent. (Procter & Gamble Co.). BE 649885 19641016, 14 pp. (Unavailable). PRIORITY: FR 19620629.

AB A mixt. useful for the washing of crockery, etc., remains **colorless** and clear if desired, and forms a stable foam in acid soln. It is ~~prepd. from~~ 20-40% by wt. of a compd. with the general formula $\text{R}(\text{C}_2\text{H}_4\text{O})_x\text{SO}_4\text{Me}$ (I) and a trialkylamine oxide (II), the I:II ratio being 3-7:1, .gtoreq.5% of an alc., 5% of a toluene- or xylenesulfonate, H₂O, and optionally, a clouding agent. In I, x = 0-4 and Me is an alkyl group. In both I and II, the alkyl groups (R in I, and the long chain in II) have 10-14 C atoms, of which .gtoreq.50% have 12, and in II only 2 have 1-2 C atoms. Thus, a mixt. (III) was prepd. from I, in which R, from a coconut alc. fraction (IV), consisted of C₁₀ 2, C₁₂ 66, C₁₄ 23, and C₁₆ groups 9%, x = 3, and Me was an NH₄ radical, II was an amine oxide with alkyl groups obtained from IV and 2 Me groups, 10% EtOH, and H₂O. In tests with 7.25 ml. III in 37.5 l. of H₂O contg. 0.45 g. of hardness, the av. amts. of foam produced after and before washing at 46.degree., 5 plates each soiled with 5 g. of a triglyceride, were negligible, 45, and 35 at pH 5, and 52, 33, and 29% at pH 7, when the I:II ratios were 2:1, 4:1, and 8:1, resp., the test results not

being affected by addn. of 5% K toluenesulfonate and a clouding agent.

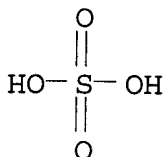
IT 7664-93-9, **Sulfuric acid**
 (esters, with ethoxylated coconut oil alcs.,
 salts, cleaning compns. contg.)
 RN 7664-93-9 HCA
 CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



CC 53 (Surface-Active Agents and Detergents)
 IT 7664-93-9, **Sulfuric acid**
 (esters, with ethoxylated coconut oil alcs.,
 salts, cleaning compns. contg.)

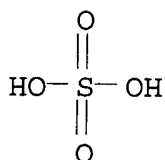
L91 ANSWER 25 OF 26 HCA COPYRIGHT 2003 ACS
 63:90160 Original Reference No. 63:16619f-g Powdered alkyl sulfate
 detergents obtained by direct sulfation of unsaponifiable secondary
 alcohols. III. Moskvina, G. I.; Volkova, L. D. Maslozhir. Prom.,
 31(8), 14-17 (Russian) 1965.
 AB cf. CA 63, 7212c. The cleansing power of Novost and Progress alkyl
 sulfate (I) detergents from unsaponifiable secondary alcs. b. up to
 350.degree. is appreciably lower for silk and wool fabrics
 than that of powders based on I from alcs. b. up to 375 and
 400.degree.; all of them show equally good cleansing power for
 Kapron. For cotton goods, the cleansing power of powd. detergents
 based on I from alcs. b. up to 350 and 400.degree. is improved by
 the presence of added alk. electrolytes and other additives and is
 equally good.

IT 7664-93-9, **Sulfuric acid**
 (esters, with alcs., detergency of, additive effect on)
 RN 7664-93-9 HCA
 CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



CC 53 (Surface-Active Agents and Detergents)
 IT 64-17-5, Ethyl alcohol
 (dodecyl polyethylene glycol ether micellar
 properties in presence of)
 IT 7664-93-9, **Sulfuric acid**
 (esters, with alcs., detergency of, additive effect on)

- L91 ANSWER 26 OF 26 HCA COPYRIGHT 2003 ACS
 56:13258 Original Reference No. 56:2523c-d Improvement in production of synthetic fat. Strom, D. A.; Koftun, T. I. Neftyanik, 5(No. 6), 14-15 (Unavailable) 1960.
- AB By using H₂SO₄, P₂O₅, or ZnCl₂ as the catalyst instead of ZnO, it is possible to shorten the production cycle and increase the amt. of synthetic fat produced by esterifying ethylene glycol with fatty acids. By using H₂SO₄ as the catalyst, it is possible to shorten the process 7-9 times, obtaining a synthetic fat the sapon. value of which equals that of the fatty acids. When ZnO is used, the sapon. value of the synthetic fat is lower than that of the fatty acids by 6-7 units. The quality of synthetic fat obtained when H₂SO₄ is used as the catalyst conforms to tech. requirements. The I value decreases to 0, the acid value is 25 mg. KOH/g., and the sapon. value is .gtoreq.160 mg. KOH/g. The stability of the synthetic fat thus obtained is higher than the stability of the fat obtained with ZnO as the catalyst. A description of the procedure is given.
- IT **7664-93-9, Sulfuric acid**
 (catalysts, in **esterification of ethylene glycol** with fatty acids to fats)
- RN 7664-93-9 HCA
- CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)



- CC **41** (Fats and Waxes)
- IT 7646-85-7, Zinc chloride **7664-93-9, Sulfuric acid**
 (catalysts, in **esterification of ethylene glycol** with fatty acids to fats)

=> d 192 1-18 cbib abs hitstr hitind

- L92 ANSWER 1 OF 18 HCA COPYRIGHT 2003 ACS
 136:342593 Softener compositions imparting nongreasy and clean feeling. Ushio, Noriaki; Ogura, Nobuyuki; Tagata, Shuji (Kao Corporation, Japan). PCT Int. Appl. WO 2002033162 A1 20020425, 23 pp.
 DESIGNATED STATES: W: US; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR. (Japanese). CODEN: PIXXD2.
 APPLICATION: WO 2001-JP9109 20011017. PRIORITY: JP 2000-316337 20001017.
- AB Softeners comprise N heterocyclic compds. bearing one C₈-36 alkyl or alkenyl group which may be interrupted by an ether, ester or amide linkage and an anionic surfactant bearing a C₈-36 hydrocarbon group. Thus, a softener contained (hardened beef tallow fatty acid

hydrocarbyl) **aminoethylimidazoline** 11, Na octadecyl sulfate 4, **polyethylen glycol** C12 alkyl ether 2.5, stearic acid glyceride 0.5, ethylene glycol 1%, a **dye**, and a perfume.

IC ICM D06M013-47

CC 46-5 (Surface Active Agents and Detergents)

Section cross-reference(s): 28

IT Surfactants

(anionic; **fabric** softeners contg. nitrogen heterocyclic compds. and anionic surfactants)

IT **Fabric** softeners

(**fabric** softeners contg. nitrogen heterocyclic compds. and anionic surfactants)

IT Quaternary ammonium compounds, uses

(**fabric** softeners contg. nitrogen heterocyclic compds. and anionic surfactants)

IT Fatty acids, reactions

(hardened beef tallow, reaction products with diethylenetriamine; **fabric** softeners contg. nitrogen heterocyclic compds. and anionic surfactants)

IT Amides, uses

Esters, uses

Ethers, uses

(heterocyclic; **fabric** softeners contg. nitrogen heterocyclic compds. and anionic surfactants)

IT Heterocyclic compounds

(nitrogen; **fabric** softeners contg. nitrogen heterocyclic compds. and anionic surfactants)

IT Polyamines

(polyalkylene-; **fabric** softeners contg. nitrogen heterocyclic compds. and anionic surfactants)

IT 79415-21-7P 147643-15-0P 415958-32-6P

(**fabric** softeners contg. nitrogen heterocyclic compds. and anionic surfactants)

IT 695-10-3DP, fatty acid hydrocarbyl 2027-53-4DP, fatty acid

hydrocarbyl 75359-25-0DP, fatty acid hydrocarbyl 86996-11-4P

415958-28-0DP, fatty acid hydrocarbyl 415958-35-9P 415958-38-2P

415969-49-2P

(**fabric** softeners contg. nitrogen heterocyclic compds. and anionic surfactants)

IT 55-22-1, Isonicotinic acid, reactions 74-87-3, Methyl chloride, reactions 75-21-8, Ethylene oxide, reactions 107-13-1,

Acrylonitrile, reactions 110-85-0, Piperazine, reactions

111-40-0, Diethylenetriamine 111-41-1 112-76-5, Stearyl chloride

124-30-1, Octadecylamine 142-64-3, Piperazine dihydrochloride

535-75-1, 2-Piperidinecarboxylic acid 30399-84-9, Isostearic acid

(**fabric** softeners contg. nitrogen heterocyclic compds. and anionic surfactants)

IT 1120-04-3, Sodium octadecyl sulfate 13893-34-0, Sodium octadecylsulfonate 34431-26-0

(**fabric** softeners contg. nitrogen heterocyclic compds. and anionic surfactants)

L92 ANSWER 2 OF 18 HCA COPYRIGHT 2003 ACS

123:35836 Compositions for bleaching **stains** without
discoloring **colored fabrics**. Matsunaga,

Satoshi; Miyamae, Yoshitaka; Inoha, Mieko; Yoshimura, Haruo (Lion Corp., Japan). PCT Int. Appl. WO 9419446 A1 19940901, 33 pp.

DESIGNATED STATES: W: AU, BB, BG, BR, BY, CA, CN, CZ, FI, GE, HU, JP, KR, KZ, LK, LV, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, US, UZ, VN; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG.

(English). CODEN: PIXXD2. APPLICATION: WO 1994-JP307 19940225.

PRIORITY: JP 1993-63168 19930226; JP 1993-113829 19930415.

AB The title compns., showing high bleaching power, comprise a peroxygen compd. and a mixt. of an org. per acid (or precursor) and an amine, amine salt and/or quaternary ammonium salt, the mixt. being granulated with a binder or impregnated into a carrier. A bleaching compn. contained Na percarbonate and a granulated mixt. of (Ac₂NCH₂)₂, (2-hydroxyethyl) **amine sulfate**, and **polyethylene glycol**.

IC ICM C11D003-39

CC 46-5 (Surface Active Agents and Detergents)

ST percarbonate bleach amine **colored fabric**; amine peroxygen bleach **colored fabric**; ammonium salt peroxygen bleach **colored fabric**; laundry detergent bleach **colored fabric**; activator bleach amine **colored fabric**; discoloration prevention bleaching **colored fabric**

IT Fatty acids, uses

(amine salts; in peroxygen compd.-contg. bleach compns. for white and **colored fabrics**)

IT Amines, uses

Quaternary ammonium compounds, uses

(in peroxygen compd.-contg. bleach compns. for white and **colored fabrics**)

IT Granulation

(of bleach activator compns. for bleaching white and **colored fabrics**)

IT Bleaching agents

(peroxygen; for white and **colored fabrics**)

IT Detergents

(laundry, contg. bleaching agents for white and **colored fabrics**)

IT 10543-57-4, Tetraacetylenediamine 89740-12-5, Sodium p-octanoyloxybenzenesulfonate 131501-22-9 164460-15-5, Sodium 4-octanoyloxybenzoate

(bleach activators; in granulated amine-contg. compns. for bleaching of white and **colored fabrics**)

IT 4452-58-8, Sodium percarbonate

(in compns. for bleaching of white and **colored fabrics**)

IT 83-87-4 102-76-1, Triacetin 604-70-6, Tetraacetyl methyl glucoside 56670-31-6, 4-Octanoyloxybenzoic acid

(in granulated amine-contg. compns. for bleaching of white and colored fabrics)

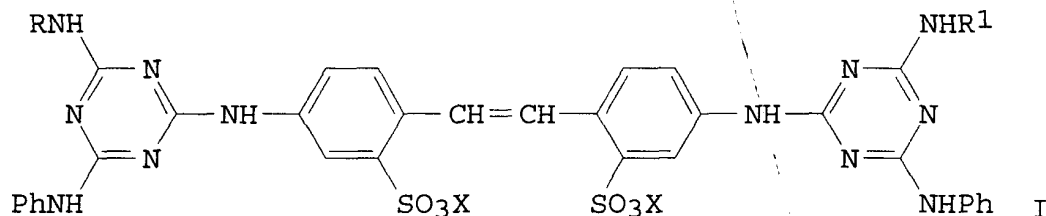
IT 107-64-2 111-42-2, uses 593-51-1, Methylamine hydrochloride
1118-41-8, Diheptadecyldimethylammonium chloride 7376-31-0,
Triethanolamine sulfate 16039-66-0 20261-59-0 22029-36-3
22029-38-5 53404-39-0, Myristic acid diethanolamine salt
53576-51-5 53926-87-7, Benzoic acid diethanolamine salt
61345-67-3, Diethanolamine sulfate 66553-53-5,
N-Methylundecylamine 68961-42-2 74267-56-4 93893-01-7
164460-09-7 164460-10-0 164460-11-1 164460-12-2 164460-13-3
164460-14-4

(in peroxygen compd.-contg. bleach compns. for white and colored fabrics)

L92 ANSWER 3 OF 18 HCA COPYRIGHT 2003 ACS

115:11312 Liquid detergent compositions containing hydrophilic fluorescent brighteners. Quintini, Massimo (Sigma Prodotti Chimici S.r.l., Italy). Fr. Demande FR 2642084 A1 19900727, 20 pp. (French). CODEN: FRXXBL. APPLICATION: FR 1990-949 19900126. PRIORITY: IT 1989-19200 19890126.

GI



AB Stilbene derivs. I (R, R1 = Me, Et; X = Na, K, NH4, etc.) are useful in liq. laundry detergents, esp. phosphate-free detergents, as fluorescent brighteners which give uniform brightening of cellulose fabrics without forming stains. A liq. detergent contained 4,4'-bis[(4-anilino-6-ethylamino-1,3,5-triazin-2-yl)amino]-2,2'-stilbenedisulfonic acid Na salt 0.18, water 44.7, dodecylbenzenesulfonic acid 4, Na lauryl ether sulfate 4, triethylamine lauryl sulfate 4, ethoxylated (9 mol) C10-12 alcs. 20, polyethylene glycol (mol. wt. 400) 20, and triethanolamine 2.3 g.

IC ICM C11D003-42

CC 46-5 (Surface Active Agents and Detergents)

IT Fluorescent brighteners

(stilbene derivs., in phosphate-free liq. detergents, non-staining)

IT Detergents

(laundry, liq., phosphate-free, fluorescent brighteners for, non-staining)

L92 ANSWER 4 OF 18 HCA COPYRIGHT 2003 ACS

114:212640 **Dyeing** or printing of acid-treated glass

fibers. Fuessmann, Klaus; Schnabel, Manfred; Schmidt, Ulrich; Bosshard, Hans Heinrich; Herrmann, Manfred; Frank, Othmar (Frenzelit-Werke G.m.b.H. und Co. K.-G., Germany; Ciba-Geigy A.-G.).

Eur. Pat. Appl. EP 405409 A1 19910102, 8 pp. DESIGNATED STATES: R: AT, BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE. (German). CODEN: EPXXDW. APPLICATION: EP 1990-112054 19900625. PRIORITY: DE 1989-3921039 19890627.

AB The dried and optionally stored glass **fibers** are **dyed** or printed with anionic **dyes** in the presence of cation-active compds. The process does not involve the use of org. binders, which may develop toxic gases and result in blackening of the **fibers** upon heating, and produces lightfast **colored glass fibers** for glass **fiber textiles.** Thus, glass **yarn** was pretreated with a soln. contg. 10 g/L HNO₃ and 1 g/L Perenin GNS (nonionic alkylpolyglycol ether) at 80.degree. for 40 min, slowly cooled, washed, neutralized with NH₄OH, and dried at 110.degree.. The pretreated **fibers** were **dyed** at 95.degree. for 30 min in a bath contg. 5 g/L polyethylene polyimines (mol. wt. 100,000-600,000), 1% **ethoxylated tallow fatty amine sulfates**, 0.2% of a mixt. of C.I. Acid Orange-94 and 154, and 0.3% of a mixt. of C.I. Acid Yellow 220 and 129, and slowly cooled. The **dyed yarn** was finished in a bath contg. 10 g/L Pretavyl 9179, dewatered, and dried at 130.degree. to give lightfast yellow **fibers.**

IC ICM C03C025-02

ICS C03C025-06

CC 57-1 (Ceramics)

ST glass **fiber yarn dyeing** lightfast;
anionic **dye** glass **fiber**; cationic surfactant
dyeing glass **fiber**

IT **Dyeing**
(of glass **fiber yarns**, with anionic
dyes contg. cationic surfactants, for lightfast
colors)

IT Polyoxyalkylenes, uses and miscellaneous
(alkyl group-terminated, pretreatment bath contg., in
dyeing of glass **fiber yarns**)

IT Quaternary ammonium compounds, compounds
(bis(hydroxyethyl)methyltallow alkyl, ethoxylated, sulfates
(esters), Me sulfates, **dyeing** baths contg. anionic
dyes and, for glass **fiber yarns**, for
lightfast **colors**)

IT Surfactants
(cationic, **dyeing** baths contg. anionic **dyes**
and, for glass **fiber yarns**, for lightfast
colors)

IT Polyamines
(polyethylene-, pretreatment bath contg., in **dyeing** of
glass **fiber yarns**)

- IT 5601-29-6, C.I. Acid Yellow 129 12218-95-0, Acid Black 60
 12220-47-2, C.I. Acid Red 315 61724-28-5, C.I. Acid Orange 94
 61724-39-8, C.I. Acid Red 251 71603-79-7, C.I. 11714 71872-19-0,
 C.I. Acid Blue 317 133556-24-8, C.I. Acid Orange 154
 (dyeing with, of acid-treated glass **fiber**
yarns, for lightfast **color**)
- IT 9002-93-1 89014-30-2D, derivs. 133529-89-2 133556-70-4,
 Perenin GNS
 (pretreatment bath contg., in **dyeing** of glass
fiber yarns)

L92 ANSWER 5 OF 18 HCA COPYRIGHT 2003 ACS

109:39787 Detergents for bilirubin-stained **textiles**.

Fukazawa, Satoru (Lion Corp., Japan). Jpn. Kokai Tokkyo Koho JP
 63006097 A2 19880112 Showa, 5 (Japanese). CODEN: JKXXAF.

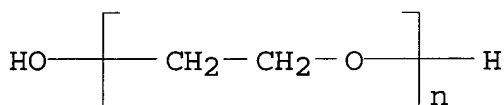
APPLICATION: JP 1986-149284 19860624.

AB Detergents for the title use comprise .gtoreq.1 of anionic,
 amphoteric, and nonionic surfactants 1-50, .gtoreq.1 of
 aminocarboxylic acids contg. .gtoreq.2 CO₂H groups in the mol. or
 their derivs. 5-50, and alkalizing agents 0.5-50%. Thus, a compn.
 of polyoxyethylene alkyl ether Na sulfate 10, K oleate 5,
 nitrilotriacetic acid di-K salt 15, K₂CO₃ 13, and H₂O 57 parts
 effectively cleaned a bilirubin-stained cotton diaper.

IT 25322-68-3D, alkyl ether sodium **sulfate**
 (surfactants, detergents contg. **aminopolycarboxylic**
 acids and, for bilirubin-stained **textiles**)

RN 25322-68-3 HCA

CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA
 INDEX NAME)



IC ICM C11D010-02

ICI C11D010-02, C11D003-33, C11D003-04

CC 46-5 (Surface Active Agents and Detergents)

ST detergent bilirubin **stained textile**; surfactant
 aminocarboxylic detergent bilirubin **staining**; diaper
 detergent; polyoxyethylene alkyl detergent **textile**;
 nitrilotriacetate salt detergent **textile**

IT Detergents
 (laundry, contg. surfactants and aminopolycarboxylic acids, for
 bilirubin-stained **textiles**)

IT Alkenes, compounds
 (.alpha.-, sulfonates, surfactants, detergents contg.
 aminopolycarboxylic acids and, for bilirubin-stained
textiles)

IT 139-33-3, Ethylenediaminetetraacetic acid disodium salt 2399-86-2
 (detergents contg. surfactants and, for bilirubin-stained
textiles)

- IT 1420-46-8
(detergents contg. surfactants and, for cleaning bilirubin-
stained textiles)
- IT 143-18-0, Potassium oleate 25322-68-3D, alkyl ether sodium
sulfate
(surfactants, detergents contg. **aminopolycarboxylic**
acids and, for bilirubin-**stained textiles**)
- L92 ANSWER 6 OF 18 HCA COPYRIGHT 2003 ACS
104:188776 Laundry detergent composition with enhanced **stain**
removal. Curry, John D.; Edwards, James B. (Procter and Gamble Co.,
USA). U.S. US 4560492 A 19851224, 8 pp. (English). CODEN:
USXXAM. APPLICATION: US 1984-667783 19841102.
- AB The title compn. contains HEDTA and is essentially free of inorg.
builders. Thus, a liq. detergent contained tridecylbenzenesulfonic
acid 10.5, triethanolamine coco alkyl sulfate
4.0, ethoxylated (7 mol) C14-15 alcs. 12.0, lauric acid
7.5, myristic acid 2.5, oleic acid 5.0, citric acid 0.2,
diethylenetriaminepentakis (methylenephosphonic acid) 0.3, HEDTA
5.0, triethanolamine 4.5, EtOH 8.6, 1,2-propanediol 3.0, HCO2Na 1.0,
and water 30.5%. The detergent gave good removal of **stains**
from **fabrics** during laundering at 60.degree..
- IC ICM C11D009-30
NCL 252110000
- CC 46-5 (Surface Active Agents and Detergents)
- ST HEDTA detergent **stain** removal; laundering **stain**
removal HEDTA; hydroxyethylethylenediaminetriacetic **stain**
removal laundering
- IT Detergents
(laundry, HEDTA-contg., for **stain** removal)
- IT 150-39-0 7578-42-9
(laundry detergents contg., inorg. builder-free, for
stain removal)
- L92 ANSWER 7 OF 18 HCA COPYRIGHT 2003 ACS
103:179615 Acrylic **fibers**. (Asahi Chemical Industry Co., Ltd.,
Japan). Jpn. Kokai Tokkyo Koho JP 60099072 A2 19850601 Showa, 4 pp.
(Japanese). CODEN: JKXXAF. APPLICATION: JP 1983-204931 19831102.
- AB Title **fibers** coated with 0.1-10% water-insol. reaction
product of polyalkylene glycol deriv. contg. .gtoreq.2 glycidyl
ethers and dialkyl sulfate-polyamine reaction product show fast
soil-resistance properties. Thus, the reaction product of 1 mol
tetraethylenepentamine and 2 mol Et2SO4 was treated with 0.3 mol
polyethylene glycol diglycidyl ether (I) at 80.degree. to give a
product, which was treated with 3.3 mol I at 60.degree. and
acidified to give a water-sol. polyamine (II) contg. epoxy groups.
Acrylic **fiber** tow was soaked in a 3% aq. soln. of II,
squeezed 50%, and heat-treated at 130.degree.. A **fabric**
prepd. from the tow showed excellent oil-**stain** resistance
(JIS L 0217) even after 10 washings.
- IC ICM D06M013-38
ICS D06M015-53

- CC 40-9 (Textiles)
ST soil resistance acrylic **fiber**; polyamine deriv
soilproofing agent; polyoxyethylene glycidyl deriv soilproofing
agent; tetraethylenepentamine deriv soilproofing agent; oil
resistance acrylic **fiber**
IT Acrylic **fibers**, uses and miscellaneous
(soilproofing agents for, polyalkylene **polyamine**
-diethyl **sulfate-polyethylene glycol**
diglycidyl ether reaction products as)
IT Soilproofing
(agents, polyalkylene **polyamine**-diethyl **sulfate**
-**polyethylene glycol** diglycidyl ether
reaction products as, for acrylic **fibers**)
IT 112-24-3D, reaction products with di-Et sulfate and polyethylene
glycol diglycidyl ether 112-57-2D, reaction products with
polyethylene glycol diglycidyl ether and di-Et sulfate
26403-72-5D, reaction products with triethylenetetramine or
tetraethylenepentamine
(soilproofing agents, for acrylic **fabrics**)
- L92 ANSWER 8 OF 18 HCA COPYRIGHT 2003 ACS
103:143308 **Dyeing** synthetic polyamide **fibers**.
Salathe, Heinz; Flensberg, Hermann; Schaetzer, Harry (Ciba-Geigy
A.-G. , Switz.). Eur. Pat. Appl. EP 135198 A2 19850327, 74 pp.
DESIGNATED STATES: R: BE, CH, DE, FR, GB, IT, LI. (German).
CODEN: EPXXDW. APPLICATION: EP 1984-111089 19840917. PRIORITY: CH
1983-5080 19830919.
- AB Synthetic polyamide **fibers** are **dyed** level, fast
shades in aq. baths with .gtoreq.1 anionic **dye** which has a
1/1 **dyeing** depth (DIN 54000) and a degree of exhaustion of
>95%, and an auxiliary mixt. contg. anionic compd., a quaternary
compd., and a nonionic compd. This bath contains an alkali salt and
an org. acid and the **dyeing** takes place at pH 5-7 and bath
temp. 95-130.degree.. Thus, a bath was prepd. contg. acetic acid,
NaOAc, Na2SO4, and an auxiliary mixt. contg. ethoxylated oleyl alc.,
ethoxylated amine sulfate ammonium salt,
ethoxylated quaternary ammonium salts, and an ethoxylated
polyamine. To this bath were added 5 anionic azo **dyes** and
1 anionic anthraquinone **dye**, and it was used to
dye a polyamide 66 textured tricot at 98.degree. for 45 min.
The polyamide 66 was **dyed** a brown shade, and the
dyebath had a degree of exhaustion of 98%.
- IC ICM D06P003-24
ICS D06P001-607
- CC 40-6 (Textiles)
ST **dyeing** polyamide **fiber** anionic; auxiliary
dyeing polyamide **fiber**; quaternary ammonium
dyeing polyamide **fiber**; ethoxylated amine
dyeing polyamide **fiber**
IT Quaternary ammonium compounds, uses and miscellaneous
(ethoxylated, **dyeing** auxiliaries, for polyamide
fibers)

- IT **Dyeing**
(of polyamide **fibers**, **dye** mixts. and auxiliaries for)
- IT **Amines**, compounds
(tallow alkyl, **ethoxylated**, ammonium **sulfate** esters, **dyeing** auxiliaries, for polyamide **fibers**)
- IT 9004-98-2 68310-21-4
(auxiliaries, in **dyeing** of polyamide **fibers** with anionic **dye** mixts.)
- IT 25305-63-9 25305-85-5 41741-86-0 51147-75-2 52333-29-6
52587-68-5 56819-40-0 57693-14-8 67109-27-7 68541-71-9
70209-87-9 70236-49-6 70236-55-4 70236-57-6 70236-59-8
70236-60-1 70247-76-6 71839-85-5 72017-66-4 72403-66-8
73612-41-6 83833-37-8 84045-68-1 84145-95-9 93804-38-7
94159-06-5 94233-13-3 98420-19-0 98420-20-3 98420-21-4
98447-65-5 98447-66-6 98447-67-7 98447-68-8 98447-69-9
98447-70-2
(**dyeing** with mixts. contg., of polyamide **fibers**)

L92 ANSWER 9 OF 18 HCA COPYRIGHT 2003 ACS

103:124942 **Dyeing** assistant for polyester **fibers**.

Jedrusiak, Zenon; Marszalek, Irena; Nowak, Rajmund;
Lipinska-Maryniak, Wanda; Witkowska, Wanda; Szkola, Benedykt;
Sinicki, Kornel; Mazurkiewicz, Janusz; Bialczak, Czeslaw; Janek,
Zbigniew (Osrodek Badawczo-Rozwojowy Przemyslu Barwnikow "Organika",
Pol.). Pol. PL 124613 B1 19830228, 4 pp. (Polish). CODEN: POXXA7.
APPLICATION: PL 1980-224272 19800515.

- AB **Dyeing** assistants for polyester films, giving uniform continuous **dyeing**, contain 20-40 parts polyoxyethylated fatty oil d.p. 15-40), 40-60 polyoxyethylated C7-15 fatty alc., ethanolamine [141-43-5], diethanolamine [111-42-2], and/or triethanolamine (I) [102-71-6], aq. **alkanolamine** salts of **polyethylene glycol** lauryl ether **sulfate**, aq. **alkanolamine** C10-14 alkylbenzenesulfonates, and adducts of alcs. with ethoxylated alkylphenols, and 10-25 parts condensates of a sulfonic acid with HCHO. Thus, a suitable compn. was prepd. by mixing at 30-50.degree. for 50 min 30 parts polyoxyethylated castor oil (d.p. 26-30), 20 parts mixt. of ethoxylated C12-13 fatty alcs. (d.p. 5-10), aq. I salt of polyethylene glycol lauryl ether sulfate [27028-82-6], aq. I alkylbenzenesulfonate, free I, and polyethylene glycol nonylphenyl isooctyl ether [98312-66-4], and 20 parts 30% aq. CH₂(C₁₀H₇SO₃H)₂.
- IC D06P001-44
- CC 40-6 (Textiles)
- ST polyester **dyeing** continuous assistant; polyoxyethylene **dyeing** assistant; triethanolamine **dyeing** assistant; fatty alc ethoxylated **dyeing**; castor oil ethoxylated **dyeing**

- IT Castor oil
(ethoxylated, **dyeing** assistants, for polyester

- fibers)**
- IT **Dyeing**
(continuous, of polyester **fibers**, assistants for)
- IT Alcohols, compounds
(fatty, ethoxylated, **dyeing** assistants, for polyester **fibers**)
- IT 50-00-0D, reaction products with naphthalenesulfonic acid
98-11-3D, alkyl derivs., ethoxylated, amine salts 102-71-6, uses
and miscellaneous 102-71-6D, alkylbenzenesulfonates 111-42-2,
uses and miscellaneous 111-42-2D, alkylbenzenesulfonates
141-43-5, uses and miscellaneous 141-43-5D, alkylbenzenesulfonates
9016-45-9 25155-19-5D, reaction products with formaldehyde
27028-82-6 58855-36-0 68184-04-3 98312-66-4
(**dyeing** assistants, for polyester **fibers**)
- L92 ANSWER 10 OF 18 HCA COPYRIGHT 2003 ACS
100:193483 Stable stilbene fluorescent brightener solutions. Fringeli,
Werner (Ciba-Geigy A.-G., Switz.). Patentschrift (Switz.) CH
640899 A 19840131, 9 pp. (German). CODEN: SWXXAS. APPLICATION:
CH 1979-4466 19790514.
- AB Alkoxylated fatty amines, $\text{MO}_3\text{S}(\text{OCH}_2\text{CH}_2)_m\text{NR}(\text{CH}_2\text{CH}_2\text{O})_n\text{SO}_3\text{M}$ (I; M = H,
alkali metal, ammonium; R = C₁₂₋₂₂ aliph. hydrocarbon radical; m + n
= 2-50) are added to aq. solns. of sulfo group-contg. stilbene
fluorescent brighteners to make the solns. stable in the presence of
metal ions such as Ca and Mg. Thus, a soln. of 4,4'-bis(o-
sulfostyryl)biphenyl (II) [38775-22-3] 10, I (M = NH₄, R = tallow
hydrocarbyl, m + n = 8) 22.5, and H₂O 67.5 g was stable during
storage and could be dild. with H₂O in any amt. without pptn. of II.
Aq. baths prepd. from this soln. and hard water imparted strong
brightening effects to cotton and polyamide **fabrics**.
Similar stabilized brightener solns. were also used in paper prodn.
- IC D06L003-12; D21H001-46; D21H003-80
CC 40-6 (Textiles)
Section cross-reference(s): 41, 43
- IT **Amines**, compounds
(fatty, **ethoxylated**, **sulfate** esters, aq.
solns. of stilbene fluorescent brighteners contg., for stability
in presence of metal ions)
- IT **Amines**, compounds
(tallow alkyl, **ethoxylated**, **sulfate** esters,
aq. solns. of stilbene fluorescent brighteners contg., for
stability in presence of metal ions)
- L92 ANSWER 11 OF 18 HCA COPYRIGHT 2003 ACS
99:89906 Cleaning of **clothing**. (Kao Soap Co., Ltd., Japan).
Jpn. Kokai Tokkyo Koho JP 58012697 A2 19830124 Showa, 16 pp.
(Japanese). CODEN: JKXXAF. APPLICATION: JP 1981-111753 19810716.
- AB Soiled **fabrics** are cleaned by porous polymer containers
contg. liq. detergent compns. of anionic surfactants 10-40, nonionic
surfactants 10-40, enzymes 0.05-10, and solubilizers 1-10%. Thus,
dirty **fabric** from the neck of a shirt was coated with a
detergent contg. a polyoxyethylene ether **sulfate** 20,

polyethylene-polypropylene glycol

dodecyl ether 30, **triethanolamine** 3, fluorescent **dye** 0.3, EtOH 5, water 41.4, and Esperase enzyme 0.3% and rubbed with the porous resin protrusion of the container.

IC D06F043-00; C11D003-386; D06L001-12

CC 46-5 (Surface Active Agents and Detergents)

ST container detergent **fabric**; polymer porous container detergent

IT Plastics

(porous, container for detergents for **textiles**)

IT 9002-88-4 9003-07-0 9003-54-7 9003-56-9 24937-78-8

(porous, container for detergents for **textiles**)

L92 ANSWER 12 OF 18 HCA COPYRIGHT 2003 ACS

98:36016 Assistants for **dyeing** hydrophobic synthetic

fibers. (Nikka Chemical Industry Co., Ltd., Japan). Jpn.

Kokai Tokkyo Koho JP 57089681 A2 19820604 Showa, 5 pp. (Japanese).

CODEN: JKXXAF. APPLICATION: JP 1980-159397 19801114.

AB Polyalkylene glycol-styrene oxide adducts or their **sulfate** derivs. or **alkylenediamine-polyalkylene**

glycol-styrene oxide adducts or their sulfate derivs. are useful as leveling agents for **dyeing** synthetic

fibers. Thus, 2900 parts polypropylene glycol-ethylene

oxide adduct was treated with 360 parts styrene oxide to give an adduct which was sulfated with 195 parts sulfamic acid to give a product (I) [84136-01-6]. A polyester knit was **dyed** with

a liquor contg. Dianix Orange B-SE 1.0, Diamix Red BN-SE 0.7, and Dianix Blue GR-E 0.3% (on **fiber** wt.) and treated with a

liquor contg. 0.5 g/L I for 60 min at 130.degree.. The leveling of the **dyed fabric** was excellent, whereas leveling

was poor for a **fabric** treated with a similar compn. contg.

glycerol-ethylene oxide adduct sulfate ammonium salt instead of I.

IC D06P001-607; D06P001-613

CC 40-6 (Textiles)

ST styrene oxide alkoxyated leveling agent; polyester **fiber** level **dyeing**; polyoxyalkylene deriv leveling agent

IT **Dyeing**

(of polyester **fibers**, with disperse **dyes**,

poly(oxyalkylenated) styrene oxide derivs. as)

IT 84083-75-0 84116-87-0 84135-59-1 84136-01-6

(leveling agents, for **dyeing** of polyester **fibers**)

L92 ANSWER 13 OF 18 HCA COPYRIGHT 2003 ACS

94:104829 **Dyeing** of polyester **fibers**. (Ipposha Oil

Industries Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 55148287

19801118 Showa, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP

1979-52957 19790428.

AB Sulfates of nonionic surfactant-epichlorohydrin adducts are useful as leveling agents for rapid **dyeing** of polyester

fibers. Thus, 1267 parts styrened phenol-ethylene oxide

adduct was treated with 277.5 parts epichlorohydrin and the adduct

was sulfated with 147 parts sulfamic acid and treated with 147 parts triethanolamine to give a salt (I). A polyester **fabric** was **dyed** with a liquor contg. Resolin Blue FBL 2, Resolin Red FB 2, and Resolin Yellow RL 2% (on **fiber** wt.) and 0.5 g/L I for 20 min at 135.degree. to give a **dyed fabric** with excellent leveling, whereas leveling was poor for a **fabric dyed** with a similar compn. contg. polyethylene glycol nonylphenyl ether sulfate Na salt instead of I.

- IC D06P003-54
 CC 39-7 (Textiles)
 ST polyester **fiber** rapid **dyeing**; epichlorohydrin alkoxyated leveling agent
 IT **Dyeing**
 (rapid, of polyester **fibers**, with disperse **dyes**, nonionic surfactant-epichlorohydrin adduct sulfate salt leveling agents for)
 IT 102-71-6D, salts with ethoxylated styrened phenol-epichlorohydrin adducts 106-89-8D, adducts with **ethoxylated** styrenated phenol, **sulfated**, **triethanolamine** salts
 108-95-2D, styrened, **ethoxylated**, epichlorohydrin adducts, **sulfated**, **trimethanolamine** salts 25322-68-3D, ethers with styrened phenol, epichlorohydrin adduct, **sulfated**, triethanolamine salts
 (leveling agents, for rapid **dyeing** of polyester **fibers** with disperse **dyes**)
- L92 ANSWER 14 OF 18 HCA COPYRIGHT 2003 ACS
 85:34600 **Dyeing** of polyamide **fibers** with direct **dyes**. Kohout, Jan; Matousek, Milan (Czech.). Czech. CS 159403 19750815, 5 pp. (Czech). CODEN: CZXXA9. APPLICATION: CS 1971-5817 19710811.
- AB Polyamide **fibers** are **dyed** level shades with direct **dyes** by adding 0.5-4% of a quaternary ammonium compd. leveling agent which is the reaction product of dimethyl **sulfate** with **ethoxylated octadecylamine** [124-30-1] to the **dye** bath. *Quaternized*
- IC D06P001-68
 CC 39-7 (Textiles)
 ST polyamide **fiber** leveling direct **dye**; level **dyeing** polyamide **fiber**; quaternary ammonium leveling agent
 IT Polyamide **fibers**
 (**dyeing** of, with direct **dyes**, leveling agents for)
 IT Quaternary ammonium compounds, uses and miscellaneous (ethoxylated amine derivs., leveling agents, for **dyeing** of polyamide **fibers** by direct **dyes**)
 IT **Dyeing**
 (of polyamide **fibers** with direct **dyes**, leveling agents for)
 IT 1-Octadecanamine, reaction products with ethylene oxide, quaternized with dimethyl sulfate

Oxirane, reaction products with octadecylamine, quaternized with dimethyl sulfate
(leveling agents, for **dyeing** polyamide **fibers**
with direct **dyes**)

L92 ANSWER 15 OF 18 HCA COPYRIGHT 2003 ACS

83:61716 Auramine sulfate solutions. Schmeidl, Karl; Eisert, Manfred
(BASF A.-G.). Ger. Offen. DE 2258344 19740530, 7 pp. (German).
CODEN: GWXXBX. APPLICATION: DE 1972-2258344 19721129.

AB Concd. solns. of **auramine sulfate** (I)
[52497-46-8] in **ethylene glycol** [107-21-1] were
prepd. by dissolving auramine in tetrachloroethylene, sulfate
formation, and addn. of HOCH₂CH₂OH. Thus, auramine chloride was
dissolved in H₂O, NaOH and CCl₂:CCl₂ added, the mixt. stirred 10
min, HOCH₂CHOH added to the org. phase, H₂SO₄ added up to pH 4.5,
and the phases sepd. to give a 50% I soln. in HOCH₂CH₂OH of high
purity and storage stability.

IC C09B

CC 40-9 (Dyes, Fluorescent Whitening Agents, and
Photosensitizers)

IT **Dyes**
(auramine sulfate solns.)

L92 ANSWER 16 OF 18 HCA COPYRIGHT 2003 ACS

80:122299 **Dyeing** polyester synthetic **fibers**.
Nakamura, Tetsuo; Tachibana, Kenji; Matsubara, Akio (Ipposha Fat and
Oil Industries, Ltd.). Jpn. Tokkyo Koho JP 48017623 B4 19730630
Showa, 3 pp. (Japanese). CODEN: JAXXAD. APPLICATION: JP
1970-33276 19700417.

AB Polyester **fibers** were **dyed** level shades with
good fastness properties with disperse **dyes** in a high
pressure and high temp. process by adding an emulsion composed of a
dibenzyl ether and emulsifying agent(s) to the **dye** bath.
Thus, a mixt. of dibenzyl ether [103-50-4] 75, polyethylene
glycol sulfate nonylphenyl ether
monoethanolamine salt 20, and dodecylbenzene sulfonic acid 5
parts was blended to form an emulsion and 1 g/l. of this emulsion
was added to a **dye** bath which was used to **dye**
knitted polyester a level shade at 130.deg. for 1 hr with Foron Gray
S-GL.

IC D06P

CC 39-7 (Textiles)

ST levelling agent dibenzyl ether; benzyl ether levelling agent;
emulsion levelling agent; disperse **dye** levelling agent;
polyester **fiber** level **dyeing**

IT Polyester **fibers**
(**dyeing** of, leveling agents for, dibenzyl ether
emulsions as)

IT Emulsifying agents
(for benzyl ether **dye** leveling agents for polyester
fibers)

IT **Dyeing**

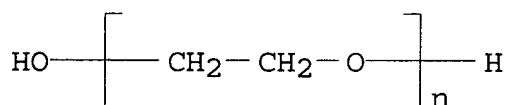
- (of polyester **fibers**, leveling agents for, dibenzyl ether emulsions as)
- IT 1886-81-3 51617-74-4
(emulsifying agent, for dibenzyl ether leveling agent in polyester **fiber dyeing**)
- IT 103-50-4
(leveling agent, for **dyeing** of polyester **fibers** under high pressure)
- L92 ANSWER 17 OF 18 HCA COPYRIGHT 2003 ACS
80:122293 **Dyeing** of polyamide **fibers**. Ruske, Manfred (BASF A.-G.). Ger. Offen. DE 2229430 19740103, 13 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1972-2229430 19720616.
- AB Polyamide **fibers** and nylon carpets were **died** wash-, light-, water-, and perspirationfast shades with the anthrapyrimidine **dyes** I (R = H, 2-MeO, 4-MeO, 3-CH₂:CHCONH; SO₃H in 3-, 4-, or 5-position). Thus, 100 parts polyamide 66 **fabric** was **died** 1 hr in 500 parts refluxing aq. soln. contg. **dye** I (R = H, SO₃H in 4-position) 1.1, Na ethoxylated (80 moles) octadecyl **sulfate** 0.5, **ethoxylated** (10 moles) **oleylamine** 0.5, 60% HOAc 6, and NaOAc 4 parts at pH 4.5-5.0 to give a fast orange brown shade.
- IC C09B
CC 39-7 (Textiles)
ST polyamide **fiber dyeing**; anthrapyrimidine **dyeing** polyamide
IT **Dyes**
(anthrapyrimidine, for polyamide **fibers**)
IT Polyamide **fibers**
(**dyeing** of, with anthrapyrimidine **dyes**)
IT **Dyeing**
(of polyamide **fibers**, with anthrapyrimidine **dyes**)
IT **Textile** printing
(on polyamide **textiles**, with anthrapyrimidine **dyes**)
- L92 ANSWER 18 OF 18 HCA COPYRIGHT 2003 ACS
56:61575 Original Reference No. 56:11848g-i Emulsifiers for aqueous emulsions of urea-formaldehyde resins. Scheuermann, Werner; Frerker, Gert; Uhl, Guenter (Badische Anilin- & Soda-Fabrik A.-G.). DE 1120685 19611228 (Unavailable). APPLICATION: DE 19590714.
- AB Emulsifiers are prepd. by reaction of 70-90 moles ethylene oxide with 1 mole of an aliphatic alc. (12-20 C atoms) and subsequent formation of the corresponding alkyl hydrogen sulfate and its alkali salts. The use of such compds. as emulsifiers permits the prepn. of stable emulsions of org. solns., e.g. BuOH, hydrocarbons, ether, or ketones, of thermosetting, water-insol. resins of the urea-HCHO type. Thus, 650 g. of a 60% butanol soln. of a urea-HCHO condensation product etherified by BuOH is emulsified in a soln. of 50 g. emulsifier (prepd. from 80 moles ethylene oxide and 1 mole

sperm oil alc. and subsequent prepn. of the alkyl hydrogen sulfate and its Na salt) in 300 g. water. A very stable emulsion is obtained which is useful for the prepn. of **colored** and **colorless textile** finishes.

IT **25322-68-3, Glycols, polyethylene**
(ethers, **sulfates**, as emulsifiers for **aminoplasts**)

RN 25322-68-3 HCA

CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



NCL 39B

CC 48 (Textiles)

IT **Textiles**

(finishes for, urea-HCHO butylated resin emulsified by sulfated ethylene oxide-sperm oil alc. for)

IT **25322-68-3, Glycols, polyethylene**
(ethers, **sulfates**, as emulsifiers for **aminoplasts**)

=> d 193 3,6,9,12,15,18 cbib abs hitstr hitind

L93 ANSWER 3 OF 19 HCA COPYRIGHT 2003 ACS

130:4464 Affinity improvers for resins to coating and printing. Senda, Eiichi; Kunio, Tokiko (Sanyo Chemical Industries, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 10279820 A2 19981020 Heisei, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-106664 19970408.

AB The improvers are selected from compds. having .gtoreq.1 vinyl group or reactive functional group, and .gtoreq.3 cationic groups provided that the cationic groups are sepd. by nonionic mol. chains having total of 2-60 atoms of C, O and N. Thus, esterifying 3 mol N-methyldiethanolamine with 2 mol di-Me adipate gave a HO-terminated oligoester which was quaternized with di-Me sulfate. A blend contg. Polypro J 609 (polypropylene) 65, JSR-EP 921 (EPR) 25, Youmex 1001 (maleated polypropylene) 5 and the quaternized product 5 parts gave test pieces with good affinity to coating.

IT **215667-19-9P**

(oligomeric; coating or printing affinity improvers for resins)

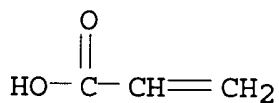
RN 215667-19-9 HCA

CN 2-Propenoic acid, polymer with .alpha.,.alpha.'-[(dodecylimino)di-2,1-ethanediyl]bis[.omega.-hydroxypoly(oxy-1,2-ethanediyl)], compd. with dimethyl sulfate, di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7

CMF C3 H4 O2



CM 2

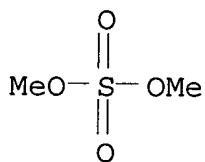
CRN 215667-18-8

CMF (C3 H4 O2 . (C2 H4 O)n (C2 H4 O)n C16 H35 N O2)x . x C2 H6 O4 S

CM 3

CRN 77-78-1

CMF C2 H6 O4 S



CM 4

CRN 215667-17-7

CMF (C3 H4 O2 . (C2 H4 O)n (C2 H4 O)n C16 H35 N O2)x

CCI PMS

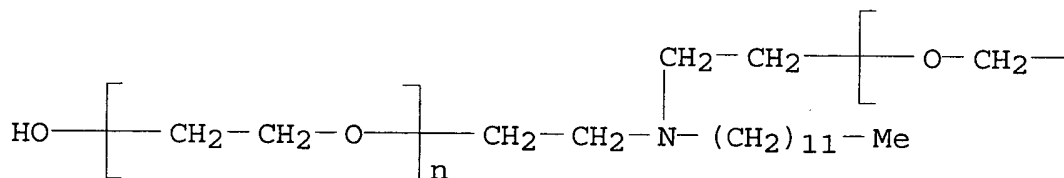
CM 5

CRN 31017-83-1

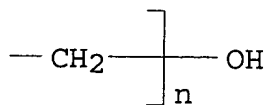
CMF (C2 H4 O)n (C2 H4 O)n C16 H35 N O2

CCI PMS

PAGE 1-A



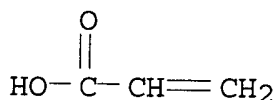
PAGE 1-B



CM 6

CRN 79-10-7

CMF C3 H4 O2



IC ICM C08L101-02

CC 37-6 (Plastics Manufacture and Processing)

IT 215595-75-8P **215667-19-9P**

(oligomeric; coating or printing affinity improvers for resins)

L93 ANSWER 6 OF 19 HCA COPYRIGHT 2003 ACS

127:14440 Nonirritant antimicrobial oligomeric quaternary ammonium salt compositions and their preparation. Taniguchi, Isoki; Shinoda, Katsumi; Kokusho, Tokiko; Yamada, Yashiro (Sanyo Chemical Industries, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 09077611 A2 19970325 Heisei, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-262099 19950913.

AB The compns. comprise $\text{H}[(\text{OA1})_m\text{N}+\text{R1R2}(\text{A2O})_n\text{CH}_2\text{CH}(\text{OH})\text{CH}_2\text{OYCH}_2\text{CH}(\text{OH})\text{CH}_2]_a\text{OA2N}+\text{R1R2A1OH} (a + 1)\text{X}^-$ (I; R1, R2 = C1-22 hydrocarbyl; A1, A2 = C2-4 alkylene; Y = polyoxyalkylene-contg. group; a = 1-95; m, n = 1-19; m + n = 2-20; X- = anion). I are prepd. by treating polyoxyalkylene-contg. diepoxy compds. with amines $\text{R1N}[(\text{A1O})_m\text{H}](\text{A2O})_n\text{H}$ (R1, R2, A1, A2, Y, a, m, n, X- = same as above) and quaternization agents. Bisphenol A-ethylene oxide (6 mol) adduct (288 g) was treated with 277.5 g epichlorohydrin and 1.5 g tetrabutylammonium bromide with gradually adding NaOH to give a glycidyl ether (epoxy equiv. 302). Then, 452.8 parts of the glycidyl ether was treated with 119 parts N-methyldiethanolamine to give an OH-terminated oligomeric intermediate, to which 119.7 parts Me_2SO_4 was added dropwise to give an antimicrobial compn. The compn. controlled Escherichia coli, Staphylococcus aureus, Pseudomonas aeruginosa, and Penicillium with min. inhibitory concns. of 100, 1.56, 200, and 400 $\mu\text{g/mL}$, resp., which were approx. the same as those of benzalkonium chloride. The antimicrobial compn. showed much lower skin irritation than benzalkonium chloride.

IT **189312-33-2P**

(oligomeric; prepn. of nonirritant antimicrobial oligomeric quaternary ammonium salts)

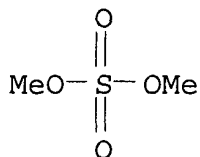
RN 189312-33-2 HCA

CN Sulfuric acid, dimethyl ester, compd. with 2,2'-(dodecylimino)bis[ethanol] polymer with .alpha.-(oxiranylmethyl)-.omega.-(oxiranylmethoxy)poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 77-78-1

CMF C2 H6 O4 S



CM 2

CRN 189312-32-1

CMF (C16 H35 N O2 . (C2 H4 O)n C6 H10 O3)x

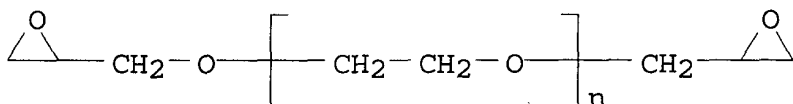
CCI PMS

CM 3

CRN 26403-72-5

CMF (C2 H4 O)n C6 H10 O3

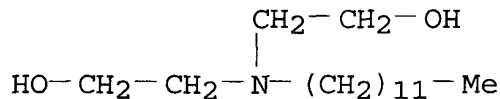
CCI PMS



CM 4

CRN 1541-67-9

CMF C16 H35 N O2



IC ICM A01N033-12

CC 5-2 (Agrochemical Bioregulators)

IT 187886-79-9P 187886-82-4P 189312-33-2P

(oligomeric; prepn. of nonirritant antimicrobial oligomeric quaternary ammonium salts)

L93 ANSWER 9 OF 19 HCA COPYRIGHT 2003 ACS

118:150818 Additives for powdered coal and oil mixtures. Honjo, Shuichi; Nishida, Yoshihisa (Daichi Kogyo Seiyaku K. K., Japan). Jpn. Kokai Tokkyo Koho JP 04057889 A2 19920225 Heisei, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1990-167792 19900626.

AB Additives for powd. coal-oil mixts. (COM) comprise (A) compds. contg. sulfuric acid esters and having >50% sulfation, e.g., ethoxylated propoxylated octyl alc. H₂SO₄ esters, and (B) polyamine compds. having the general formula RNH(R₁NH)nR₂ (R and R₂ are C₁-30 alkyl, acyl, or H; R₁ = C₂-6 alkylene group; n = 1-20), e.g., tetraethylenepentamine oleic acid (1:1) amide.

IT 146401-70-9

(additives contg. polyamines and, for powd. coal-oil mixts.)

RN 146401-70-9 HCA

CN Ethanamine, compd. with .alpha.,.alpha.'-[(dodecylimino)di-2,1-ethanediyl]bis[.omega.-(sulfooxy)poly(oxy-1,2-ethanediyl)] (2:1) (9CI) (CA INDEX NAME)

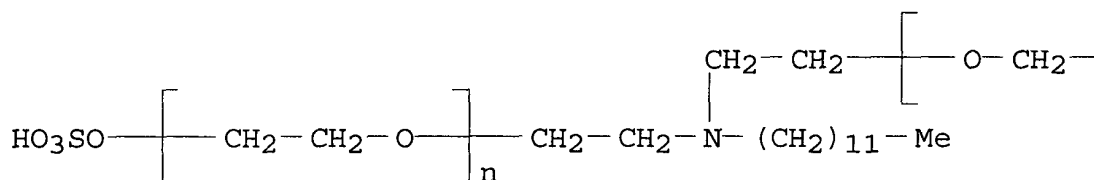
CM 1

CRN 146401-69-6

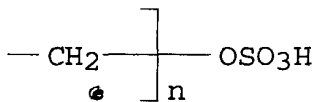
CMF (C2 H4 O)n (C2 H4 O)n C16 H35 N O8 S2

CCI PMS

PAGE 1-A



PAGE 1-B



CM 2

CRN 75-04-7

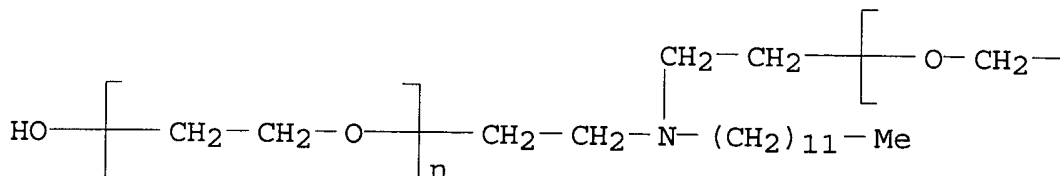
CMF C2 H7 N



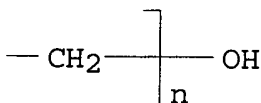
IC ICM C10L001-32

- CC 51-18 (Fossil Fuels, Derivatives, and Related Products)
- IT 4067-16-7D, reaction products with ethylene oxide-propylene oxide copolymer, sulfates, sodium salts 9003-11-6D, reaction products with pentaethylenhexamine, sulfate, sodium salt 38096-75-2
68439-23-6 146294-04-4 146343-14-8 **146401-70-9**
146401-71-0 146477-90-9 146478-10-6 146672-64-2
(additives contg. polyamines and, for powd. coal-oil mixts.)
- L93 ANSWER 12 OF 19 HCA COPYRIGHT 2003 ACS
- 108:188406 Washfast hydrophilization agents for finishing of synthetic fibers for medical goods and undergarments. Tashiro, Mikio; Sakashita, Nobuo (Teijin Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 62289674 A2 19871216 Showa, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1986-128994 19860602.
- AB The title hydrophilization agents comprise polyester-polyether block copolymers contg. units of terephthalic acid, isophthalic acid, Na 5-sulfoisophthalic acid and/or lower alkyl esters thereof, lower alkylene glycol units, and units of polyalkylene glycols and/or polyalkylene glycol monoethers and alkyl sulfate alkanolamine salts $RO(ZO)nSO_3H.NR_1R_2R_3$ (R = C1-18 alkyl, alkenyl, alkylaryl; R1 = (ZO)kH; R2, R3 = C1-18 alkyl, alkenyl, alkylaryl, (ZO)kH; Z = branched or nonbranched C2-4 alkylene; k = 1-20; n = 0-20). A polyester tow was treated with an aq. dispersion contg. 10% of an 80:20 mixt. of ethylene glycol-ethylene oxide-isophthalic acid-terephthalic acid block copolymer (I; av. mol. wt. 10,000; having ratio of terephthalate units to isophthalate units 70:30 and sum of terephthalate units and isophthalate units to polyethylene glycol units 5:1) and $C_{12}H_{25}O(CH_2CH_2O)_5SO_3H.N(CH_2CH_2OH)_3$ (II), and simultaneously squeezed and crimped to give a tow with I content 0.15%. The tow was heat-treated 30 min at 130.degree. and cut, and a nonwoven web was prepd. having water absorption 2 s and 3 s (after washing for 5 cycles) and skin shock factor 0B (.ltoreq.0B = neg., .gtoreq.4 = pos.), vs. 2, 28, and 3B, resp., for a control prepd. using $C_{12}H_{25}O(CH_2CH_2O)_5SO_3H.N(CH_2Me)_3$ instead of II.
- IT **114239-76-8**
(polyoxyalkylene-polyester hydrophilization agents contg., for synthetic fibers, for improved washfastness and softness)
- RN 114239-76-8 HCA
- CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[(dodecylimino)di-2,1-ethanediyl]bis[.omega.-hydroxy-, compd. with .alpha.-sulfo-.omega.- (dodecyloxy)poly(oxy-1,2-ethanediyl) (1:1) (9CI) (CA INDEX NAME)
- CM 1
- CRN 31017-83-1
- CMF (C2 H4 O)n (C2 H4 O)n C16 H35 N O2
- CCI PMS

PAGE 1-A



PAGE 1-B

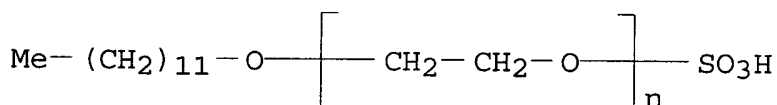


CM 2

CRN 26183-44-8

CMF (C2 H4 O)_n C12 H26 O4 S

CCI PMS



IC ICM D06M015-507

ICS D06M013-38; D06M015-53

CC 40-9 (Textiles and Fibers)

Section cross-reference(s): 63

IT 27028-82-6 114239-72-4 114239-73-5 114239-74-6 114239-75-7
114239-76-8

(polyoxyalkylene-polyester hydrophilization agents contg., for synthetic fibers, for improved washfastness and softness)

L93 ANSWER 15 OF 19 HCA COPYRIGHT 2003 ACS

104:185507 Soil stabilizers. Keil, Burkhardt; Kreis, Johannes; Kullmann, Anton; Lehfeldt, Juergen; Lier, Werner; Moser, Gerhard; Salewski, Guenter (VEB Petrolchemisches Kombinat Schwedt, Ger. Dem. Rep.). Ger. (East) DD 228417 A3 19851009, 4 pp. (German). CODEN: GEXXA8. APPLICATION: DD 1982-240770 19820616.

AB Stabilizers for sandy and loamy soils are formulated from a bitumen emulsion contg. a quaternary NH₄ alkoxy deriv. [RNH[(CH₂CHR₁O)_mH][(CH₂CHR₂O)_nH]]⁺ R⁻ (R = C₁₂-22 aliph. radical; R₁, R₂ = H, Me, Et; R₃ = Cl, SO₃H, AcO, etc.; m + n .ltoreq.10], and eventually a known alkoxyalkylphenol. Thus, an emulsion is given, contg. 30% extn. bitumen (from propane deasphalting), 30% bitumen-blasting oil, 2% quaternary NH₄ compd., 1% alkoxylated dodecylpolyglycol ether, 0.5% conc. HCl and 36.5% water. When

applied in 1:1 diln. to a sandy-loamy soil, the emulsion showed 25 mm penetration depth and 120 min breaking time.

IT 91853-72-4

(soil stabilizer contg. bitumen and)

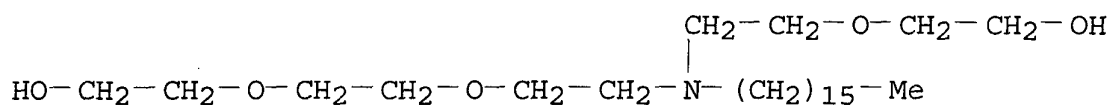
RN 91853-72-4 HCA

CN 3,6,12-Trioxa-9-azatetradecane-1,14-diol, 9-hexadecyl-, sulfate
(1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 91853-71-3

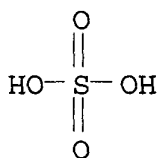
CMF C26 H55 N O5



CM 2

CRN 7664-93-9

CMF H2 O4 S



IC ICM C09K017-00

CC 19-6 (Fertilizers, Soils, and Plant Nutrition)

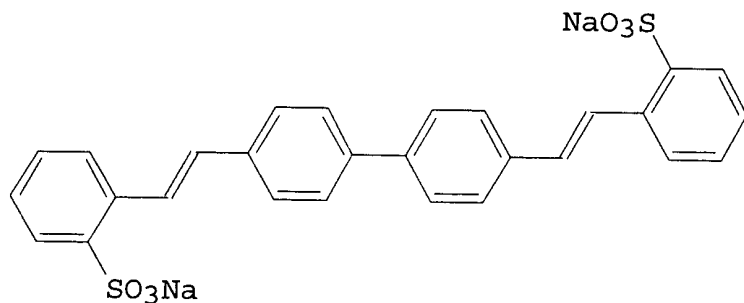
IT 91853-72-4 101769-82-8 101769-84-0

(soil stabilizer contg. bitumen and)

L93 ANSWER 18 OF 19 HCA COPYRIGHT 2003 ACS

93:48547 Stable stilbene fluorescent brightener solutions. Fringeli, Werner (Ciba-Geigy A.-G., Switz.). Brit. UK Pat. Appl. GB 2026566 19800206, 7 pp. (English). CODEN: BAXXDU. APPLICATION: GB 1979-24393 19790712.

GI



AB The title solns., useful for fluorescent brightening of textiles, which are stable to metal ions and metal catalysts contain a sulfo-substituted stilbene deriv. and an oxyalkylated fatty amine $\text{MO}_3\text{S}[\text{O}(\text{CH}_2)_2]_n\text{NR}[(\text{CH}_2)_{20}]_m\text{SO}_3\text{M}$ (I) ($\text{R} = \text{C}_{12-22}$ aliph. hydrocarbon; $\text{M} = \text{H}$ or monovalent cation; $m + n = 2-50$). Thus, 10 g II [38775-22-3] was mixed with a soln. of 22.5 g I ($\text{R} = \text{C}_{18}\text{H}_{35}$; $\text{M} = \text{NH}_4$; $m + n = 2$) [74194-00-6] in 67.5 g water at 50-60.degree. and the mixt. was stirred 15 min to give a storage-stable dilutable soln.

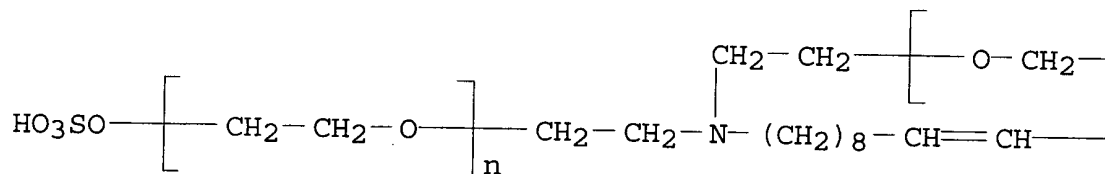
IT 74194-00-6

(stabilizers, for solns. of stilbene fluorescent brighteners)

RN 74194-00-6 HCA

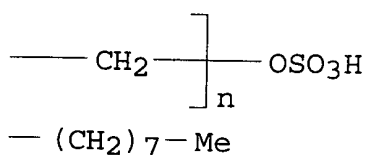
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[[(9Z)-9-octadecenylimino]di-2,1-ethanediyl]bis[.omega.-(sulfooxy)-, diammonium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● 2 NH_3

PAGE 1-B



IC D06L003-12; C08L071-00; D21H003-80
CC 40-11 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)
IT **74194-00-6**
(stabilizers, for solns. of stilbene fluorescent brighteners)